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Vol. 111 November 15, 1941 No. 20

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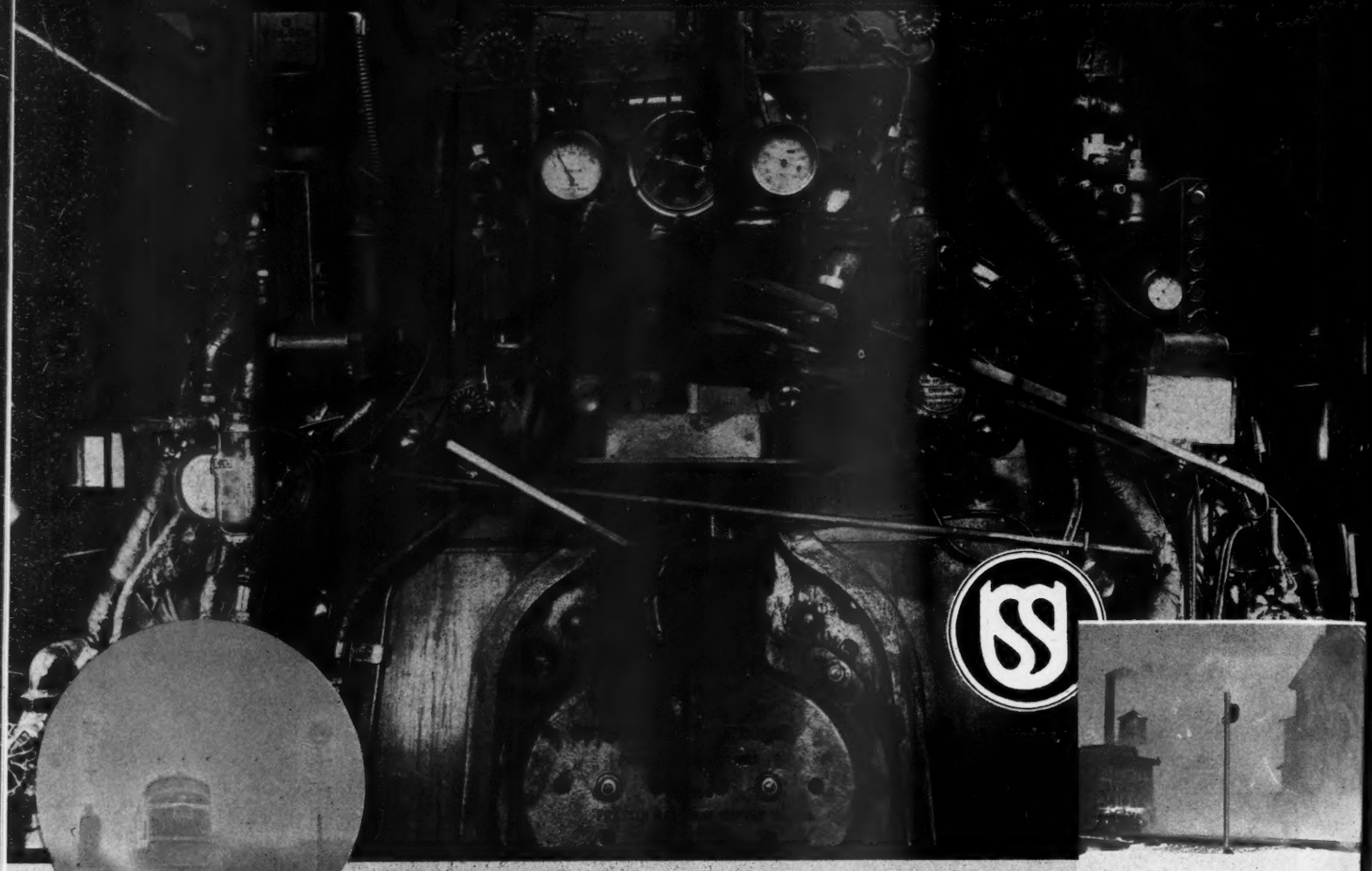

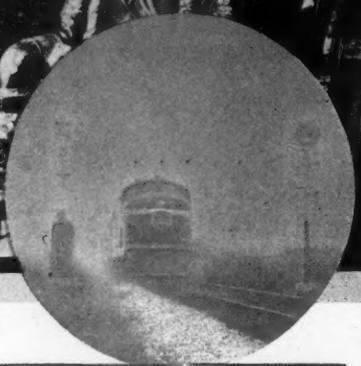

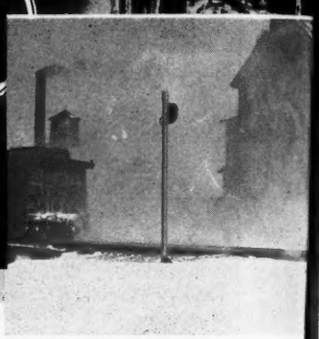

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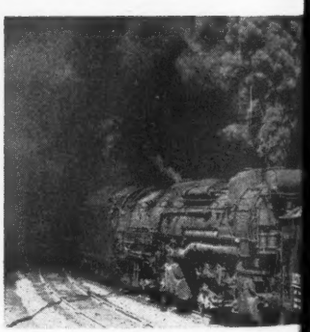

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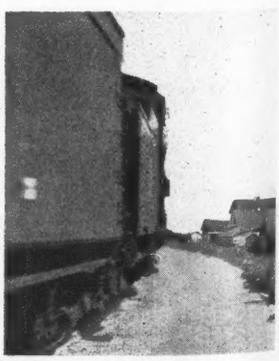

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RAILWAY AGE

# What the Union Leaders Are Calling a Strike Against

"There are still some who deliberately delay defense, delay defense output, by using their economic power to force the acceptance of their demands rather than use the established machinery for the mediation of industrial disputes."—*From President Roosevelt's Address to I. L. O. on November 6.*

The much-vaunted Railway Labor Act lies bleeding, victim of an attack by a parent who heretofore has boasted of his offspring's virtues. Whether it will be killed probably will depend upon whether the railway labor unions continue their attack upon it. For there can be no question that it was sired by the labor unions; and it will be so dead that it had just as well be repealed if by strikes, or even threats of strikes, they succeed in preventing the recommendations recently made by President Roosevelt's "emergency board" from being carried out.

Under the Railway Labor Act management, the labor unions, or both, may reject the recommendations of an emergency board and do as they please thirty days after it has made its report. But the main purpose of the act is to cause **peaceful** settlements of disputes; and if and when, after the act's entire process has been carried out, as it has been in this instance, it shall fail to accomplish that purpose, it will have become a complete failure. The accomplishment of peaceful settlements was likewise the main purpose of the provisions of the Transportation Act of 1920 establishing the Railroad Labor Board. But the shop crafts resorted to a nationwide strike in 1922 rather than accept a decision of the Railroad Labor Board; and from that time the labor provisions of the Transportation Act were as good as dead.

### Railway Labor Act Passed at Behest of Labor Unions

There is a difference of vital importance, however, between what occurred preceding the strike in 1922 and what has thus far occurred preceding the strike now threatened. The labor unions did not virtually write the labor provisions of the Transportation Act of 1920. They did virtually write the provisions of the present Railway Labor Act. It became a law in 1926 after months of agitation for it by the labor unions. A substantial minority of railway executives opposed this legislation, as did the *Railway Age*, because its principal purpose was the abolition of the Railroad Labor Board. When the bill was being considered in Congress, Donald Richberg, general counsel and authorized spokesman for the labor unions, urged its passage in the following words: "The strongest feature of the bill is that it does represent the agreement of the parties and that all concerned will be placed under the **moral obligation** to see that the machinery which has been devised and accepted is utilized and operated in good faith and that it does promote harmony, efficiency and continuity in industrial relations in the transportation service."

The implication of Mr. Richberg's statement that the proposed legislation would place upon the railway managements and the labor unions an equal "moral obligation" to see that "the machinery which has been devised and accepted is utilized and operated in good faith" to the ends that he stated was inexact, because the legislation did not represent "the agreement of the parties" that he asserted. The *Railway Age* said immediately after the enactment of the 1926 legislation: "While a **majority** of railway executives supported the bill, they did so chiefly as a concession to the labor leaders in the interest of peace; and the new law represents in a much greater measure the methods for settling labor controversies that the labor leaders favored than it does the methods that **most** railway executives favored." In other words, it did not represent the views of the minority of railway executives who opposed it; but it was supported unanimously by the railway labor leaders.

### Unions Wrecked the Former Labor Board

The Railroad Labor Board, as it existed from 1920 to 1926, was a tri-partite party on which the unions, management and the public were equally represented, the "public" members being selected by the President. The unions developed a dislike to having their demands passed upon, in the first instance, by "public" representatives. They sought instead a setup which would call for intervention of the public only as a last resort. Consequently, the 1926 legislation provided for, first, direct negotiations, second, mediation by a board of government appointees, and, third, arbitration (if the parties should agree to it) or hearings and recommendations by a board all members of which should be appointed by the President. Thus disputes could be settled without public intervention if the political complexion of the government indicated that government appointees to represent the public might not be

favorable to demands of the labor unions; while public intervention could be called for if the political complexion of the government was such as to encourage the belief that government appointees to an emergency board would be favorable to the demands of the unions.

In 1934 the Railway Labor Act was amended—this time entirely at the behest of the unions, and despite unanimous opposition by railway managements. The amendments then adopted had the purpose and effect of destroying all so-called "company unions" and of establishing the National Railroad Adjustment Board, the procedure of which has since so bedeviled labor relations on the railroads by causing the "featherbed" rules to be so interpreted and applied as to enable the unions to practice extensive, and for the railways very expensive, racketeering.

In is thus an undeniable fact that there is no major provision of the Railway Labor Act as it now stands which was not actively fathered by the labor unions. They have, with regard to every part of it, the "moral obligation" which Mr. Richberg, their own spokesman, emphasized in 1926, "to see that the machinery which has been devised * * * does promote harmony, efficiency and continuity in industrial relations in the transportation service." The railways can have no like and equal moral obligation, because some of them opposed all the provisions of the Railway Labor Act, and all of them opposed some of its provisions.

### Sacrifices to Maintain Peace

Nevertheless, railway managements have done and sacrificed much more to enable the act to maintain peace than have the labor unions. Indeed, the unions have never made a single sacrifice to maintain its effective operation. Even the negotiations which resulted in an agreement to a 10 per cent deduction from basic wages in 1932 were not conducted in accordance with the process of the law. Railway managements carried out its process in 1937 by making advances in wages not even warranted under the conditions existing early in that year and wholly unwarranted under the "recession" conditions existing in the latter part of the year.

In 1938, when railway net operating income became the smallest and the deficit after fixed charges the largest, in any year of the depression excepting 1932, the railways sought a wage reduction to relieve them from the increases which they had reluctantly granted in 1937. The dispute went to an "emergency board" of very definitely New Deal complexion; and this board justified the faith of the labor leaders by denying the railways' plea for relief from labor costs that were obviously excessive under the conditions existing. In view of the history of the Railway Labor Act, of the personnel of the board and of circumstances surrounding its handling of the dispute, the railways were under no moral obligation to accept its recommendations. Nevertheless, they did accept them.

The railroads consented to arbitration of the wage dispute of 1941 under the Railway Labor Act, but the unions rejected it. In view of what had occurred in 1938, the railways apparently had reason to be apprehensive and the unions to be optimistic regarding the recommendations that would be made in 1941 by another emergency board appointed by the President. And, in fact, a majority of the "emergency board" which reported last week had previously held office under the New Deal or had collaborated with leading New Dealers. But evidently the union leaders made the mistake of disregarding the possibility that in a time of national need a board of intelligent, honorable and able men would put aside political predilections and act objectively in the public interest.

### Railroads Consented to Arbitration

When the board proposed that it be authorized by the parties to the dispute to arbitrate and thereby definitely settle it, the railways again consented to arbitration and the unions rejected it. Neither this emergency board nor the one in 1938 gave the railroads anything, but both of them denied the carriers a great deal. The 1938 board supported the union position 100 per cent; this one supported it about 30 per cent. But, nevertheless, the railways accepted the recommendations of the 1941 board also, while some, at least, of the unions have rejected them and announced they will strike rather than accept them.

Apparently it is the present position of the unions that any board which passes on their demands, even though appointed by a President who is notoriously pro-union labor, must back up their demands with nothing more nor less than a rubber stamp. The Railway Labor Act, of which they are the parent, evidently, in their view, is not a measure to do justice or promote the national welfare, but a measure to give them whatever they want, and as long as it does this it is all right; but when it fails to do this they will take what they want peaceably, if possible, or by threats or force, if necessary. If this is to be the attitude and policies of the unions, obviously the taxpayers might better save themselves the expense of machinery for government mediation and hearings of railway labor disputes, and just amend the law to provide that wages and working conditions on the railroads shall be those prescribed by the unions. Is this not virtually what A. F. Whitney and the other union leaders who take their cue from him are demanding? "If John Lewis can get away with it, why can't I? Ain't I just as tough as John Lewis?"

### How Impartial Judges View the R. R. Situation

No intelligent and fair person can carefully read the 1941 emergency board's report and then—however much he may disagree with some of his conclusions—question that it is the product of hard work by intelligent, sincere and able men motivated only by a con-

cern for the national welfare. We summarized the board's findings and recommendations in last week's issue. On another page in this issue we publish excerpts from its report which make clear the motives, the facts and the reasoning which led to its conclusions. If railway employees could be supplied with this presentation and persuaded to read it carefully, there would be little chance of a strike.

"The financial status of the railroads," said the board, "is a matter of more general knowledge and of more statistical information than is that of any other single industry." What is this financial status, as the board found it to be? It was succinctly summarized in Table I, Appendix E, on page 136 of the board's report, which table is reproduced with other excerpts from the report elsewhere in these pages. That table shows that the railroads in 1940 had 32 per cent less operating revenues than in 1929; that the net income they earned for their stockholders was 79 per cent less than in 1929; and that they are today handling only about 78 per cent as much of the country's traffic as they handled twelve years ago. If railroad employees were familiar with these facts and their significance, they would be a whole lot more concerned about what may become of their jobs in a few years than about an immediate increase in their wages.

### The Truth About Union Contentions

Union members have been told by their leaders and press that railroad wages are lower than those in other industries. The board shows that in the period 1929-1940 "average full-time annual earnings of railway employees exceeded the corresponding average for all industries by an amount never less than $275. In 1940 the excess was over $550." Union spokesmen have contended, apparently with the hope that their members would believe them, that wages in the railroad industry have not improved for twenty years. The board shows that from 1929 to 1940 average annual wages per employee rose from $1,744 to $1,913; and that average hourly rates increased from 67.5 cents to 77.4.

Railroad employees have been told by their leaders that their work is irregular; but the board learned, and reported, that "cyclical fluctuations in railroad employment taken as a whole are of about the same intensity as the cyclical fluctuations in general industrial production. The cyclical amplitude of railroad employment is definitely smaller than that of employment in the durable goods industries"—with which the union spokesmen made most of their wage comparisons.

The union leaders contended before the board—as the paper "Labor" has endeavored to induce its readers to believe—that railroad employees are entitled to greater compensation because of "increased service performance" per employee, that is, more ton-miles. But the board said that such figures disclose nothing as to what part labor itself may have contributed toward producing such larger output per employee. The board might have added, but did not, that, if greater productivity per employee in freight service merits a wage increase—then, by the same reasoning, the decline in the past twenty years in output per passenger employee must merit a decrease.

The board concluded that the record does not demonstrate "that the skill, effort, and responsibilities of railroad employees, taken as a whole, have increased in the last few years, except as heavier traffic means more responsibility." Regarding the contention of the union leaders that the hardships and hazards of railroad employment have increased, the board accepted the carriers' showing that in the past two decades there has occurred "a truly remarkable decline in the accident rate among employees."

The non-operating unions, in their brief, contended that the railroads could pay a much higher wage "without creating the necessity for increasing freight and passenger rates." The board, on the contrary, plainly stated its belief that the increased labor costs which it approved, and which are much less than the unions demanded, cannot be met unless the carriers are recompensed, in part at least, either by rate increases averaging 5 per cent or by a subsidy from the government.

### The Same Story That Union Members Are Told

The story the railway labor chieftains told the board was substantially the same one they have been telling their members in the union press—especially in "Labor." The board members, with no possible interest inimical to labor to serve—inclined, probably, in view of the prior New Deal connections of some of them, toward the organized labor point of view—examined the union's bill of particulars and found it lacking in almost every major point, the single exception being rise in the cost of living.

Brought to book for their looseness with facts and figures by a competent body whose motives they cannot impugn, some of the labor leaders are calling on their misled members to walk out. They ask them to strike against the stone wall of facts which the present railroad situation presents—to strike against the finding of the board that "railroad earnings which are adequate to preserve the railroad mechanism in good health as a medium of transport may also be taken as earnings adequate to keep faith with existing investors and to preserve railroad employment as a long-run livelihood." That statement is equivalent to a finding that **the long-run interests of the security owners, of the managements, of the shippers and the employees are identical**; and that no further increase in labor costs may be taken from the share of railway earnings now accruing to security owners without harm, in the long run, to employees themselves. Such a finding by a body of men who have no reason for wishing to deceive anybody, if the great body of union members should become aware of it, might lead to a demand for a new kind of union leadership. Hence, the strike call. Stir them up emotionally, in the hope

that they may **lose** their heads instead, perchance, of **using** them.

### What Could a Strike Accomplish?

How can the labor unions gain anything by striking, or even threatening to strike? How can railway management, to avoid a strike, or because of a strike, or for any other reason, give them any more than the board has recommended? The board made plain its belief that if the advances in wages recommended by it were granted the railways would have to get an advance in rates to maintain net earnings required by the railways under present conditions to enable them to render the service needed by the public. The railways would be condemned by the shipping public, and probably by the Interstate Commerce Commission, if they made still larger advances in wages and sought the larger advances in rates they would call for—even though the larger advances in wages were made at the behest of President Roosevelt himself.

It is reported that the President will call a conference of railway executives and labor leaders in an effort to effect a settlement. But the railways have not only complied with every provision of the Railway Labor Act, and twice expressed willingness to arbitrate, but are now confronted with recommendations made by an emergency board under the act. How, after all this, can the President ask the railways to grant more than his own board has recommended? His board held hearings on every phase of the dispute. The President has held none and will hold none. Therefore, his board presumably knows all that is involved, and the merits of the claims of both sides, while the President knows none of these things. Therefore, for him to ask the railways to grant more than his own board has recommended would be to (1) condemn the Railway Labor Act of which the labor unions secured the passage, (2) condemn the labor unions for having secured the passage of an act that they now condemn as unworkable for the purpose for which it was adopted, (3) stultify all the members of Congress who voted for the act's passage and subsequent amendment, and (4) stultify the President himself by the admission either (a) that he appointed an unfit board or (b) that he will yield to labor-union demands regardless of their unreasonableness and the effects on the national welfare.

### The Labor Unions vs. Public Opinion

It was the argument and assumption of those who advocated the Railway Labor Act, of the members of Congress who passed it and of the President who signed it that the recommendations of any and every emergency board would be enforced in the **court of public opinion**; and it is our recollection that the recommendations of every previous such board have been carried out. The greatest railway labor controversy in history is now before the court of public opinion; and that court has before it the recommendations made by an emergency board in the period of greatest national emergency in which any such board ever did, or probably ever will, make recommendations. Will the court of public opinion uphold those recommendations, and cause the President and other government officials to back them up?

The issue presented is no longer between the railways and the labor unions, but between the public and government, on one side, and the labor unions, on the other side. A **government board** has said what should be done; and the railway managements have agreed to do their part of it. If the government will not or cannot get the labor unions peaceably to do their part of it, also, then all the process that has been established by government for peaceably settling railway labor disputes has become a farce; we have a government by labor unions; and the time has come for a struggle to return government to the people and thereby **re-establish** in this country the democracy and freedom that we are spending such vast sums to **newly establish** in some other countries—Russia, for example—that have never had them.

## Why Collect Garbage Free of Charge?

The railroads are in the refuse-disposal business. It may be good business (from the short-sighted viewpoint) for the customers, but it is bad business for the railroads. There is no revenue in it, but there is plenty of expense. And, what is as important to the customers as it is to the railroads at such a time as the present, there is also involved needless detention of cars from useful employment. The abuse of empty cars by receivers of freight who fail to clean out dunnage, waste, etc., has been a lively topic for discussion at Advisory Board meetings, the latest instance being that of the recent assembly of the Atlantic States group at Newark, N. J. (*Railway Age* of October 25, page 682).

The waste from filthy cars is a well-known sight to anyone familiar with that ugly stretch of railroad property located at the remoter outskirts of large cities—the car-cleaning track. The problem is not new as far as the expense to the railroads is concerned—but in a time of car supply "tightness" both the railroads and the shippers have a **common** interest in eliminating the loss of car-time required to make equipment usable for the next customer.

Inconsiderate enough are the receivers who fail to clean out the normal rubbish. Much more so is the small minority of them who seize the empty car as a means for cleaning out their warehouses; loading their accumulated debris into the car for the railroad to cart away and dump for them.

Random investigation discloses, for example, a lot of 287 coal gondolas, each piled with from 200 to 4,000 lb. of refuse, turned over as "empty" to a certain railroad in the course of a week. The time consumed in

cleaning these cars amounted to 450 car-days. A traffic manager of a large anthracite mining concern reports that one breaker has to clean out an average of 28 cars a day—cars which are loaded with up to four ft. of "junk" by the previous receiver. In winter the whole mass is frozen solid. Averaging the year as a whole, some seven man-hours of work are required to prepare each car for its next load.

Further examples are legion. The receiver of a car of paper—as clean a lading as exists—emptied the load but turned over the car to the railroad full of half-empty lard cans which rolled about and smeared the car interior. The road paid a truckman $5 to cart the cans away, in addition to labor costs on the cleaning track. A certain wholesale dealer in produce is accustomed to clean lettuce and celery in refrigerator cars as received. After sales terminate, he closes the doors; the railroad picks up the car. Supposedly empty, it rests in a yard while the hot sun beats down; the lettuce parings rot and permeate the broken wood lining. It then becomes the task of the victimized railroad to switch the car to a live steam connection and sweat out the odor of decomposition; then spot the car for drying.

Responsible shippers agree that the carriers ought to take steps to protect themselves, their decent customers and the car supply by making rigid inspection of interiors before pulling "empty" cars. Garbage-disposal is an unprofitable business when it is rendered without charge.

# *Hints on Post-War Planning*

In trying to determine in advance the conditions they will probably face when the war is over, railroads can learn from other industries in two ways. That is (1) they can, perhaps, find out from other industries how heavy they believe their patronage of the railroads is going to be. But also, (2) the railroads might get from other industries some ideas on research methods which may prove helpful in foretelling the future of railroad traffic and earnings; and also what *pricing trends* in these other industries are likely to be.

Clarence Francis, president of General Foods, recently made known in the New York Times, in an article by Winthrop W. Case, his company's preparations to meet the uncertain future. He said:

"Chief reliance for meeting the post-war period is being placed by the company on an active and progressive research program. Our research organization is devoting much of its efforts not only to immediate needs but also to the three-fold task of developing new products, new production methods and new packaging against the time when the ending of the emergency will permit their introduction.

"I am not referring only to researching within our own walls, but rather view the whole country as a research laboratory. This defense activity has awakened American business and industrial genius and we want to know what is going on and being done everywhere in order that we may adapt the newest and most modern operations to our own business.

"The two other major policies of the company in preparation for the period after the war include the conservation of the company's cash resources in order to keep the institution financially sound, and the maintaining and strengthening of the organization and its personnel.

"For example, the salesmen in one particular line that is temporarily oversold have been withdrawn from the road for the technical training we have long wanted to give them. This program for taking advantage of the present unusual opportunities is in many ways the most important of the three policies, as the more we are provided with the right men, the more confidence we will have to face the future."

The danger of a prolonged post-war depression is not as great as some appear to think, according to Mr. Francis. Continuing, he said:

"The aviation industry is on the verge of mass production which promises a far-reaching stimulus to our economy after the emergency. The present rapid expansion of the output of products for defense purposes is likely to result in many cases in lower prices or in new and better products at the same price, which will in turn lead to a great extension in the use of these materials. This will undoubtedly have repercussions on the food industry as well as on all others.

"Manufacturing equipment in general is undergoing increasing depreciation at the present time owing to the priorities which now have to be given to defense needs and which prevent normal replacements. Much recent technical progress cannot be applied for the same reason. If the emergency lasts for any considerable time, the post-war modernization of the nation's productive plants should supply a vigorous stimulus to all industries."

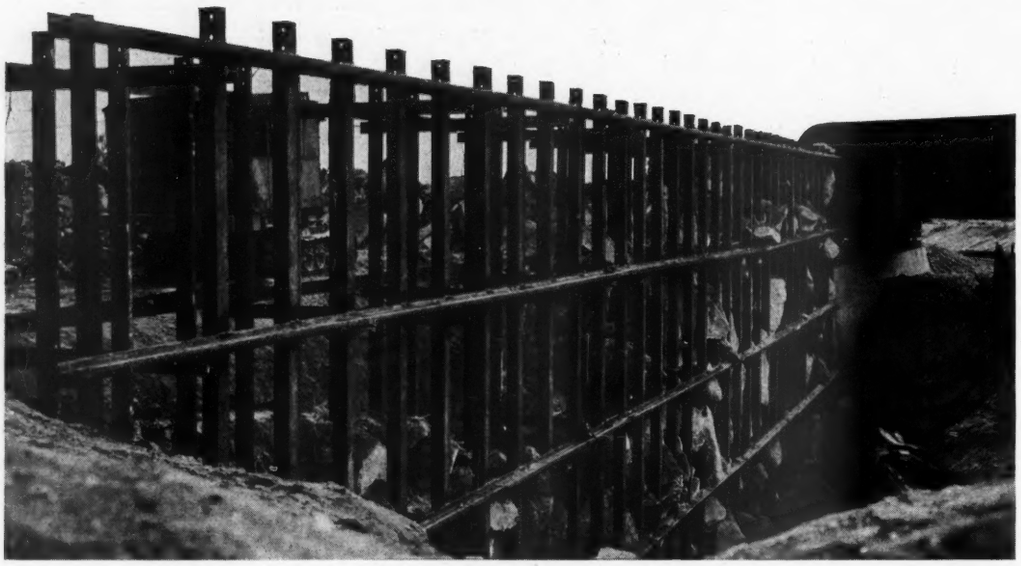
Quite likely the favorable prospects of the aviation industry appear to Mr. Francis as an encouraging factor. The same prospects probably are the opposite of favorable to the railroads—and yet, whatever the facts are, they are of even more importance to the railroads than they are to concerns in the food business. For that reason, the more the railroads know about them, the better.

What Mr. Francis has to say about the whole country being a research laboratory probably, also, has even more significance to the railroads than to the food business. That is—adoption of new materials and methods affect the railroads in two ways; (1) as they may be adopted directly in railroad service; and (2) as their adoption by other industries may shift or alter the railroads' traffic prospects.

Using the time of salesmen who are not busy when the demand for goods and services exceed the supply, to train them better to meet conditions when supply and demand conditions are again reversed, is another of Mr. Francis' ideas which seems to offer a useful suggestion to the railroads.

Might it not be well for railroads to have more men studying and reporting on probable post-war problems, and especially collecting and analyzing the opinions of good railway customers such as Mr. Francis, as to what the carriers need to do to maximize their post-war patronage? Such an inquiry, of course, would encompass a study of the *rates* necessary to maximize future railroad revenues.

# Santa Fe Strengthens Lines to Fight Flood Waters



**A Section of the Rip Rap Rail-Crib Dike Built in Connection With the Bridge Over Santa Anita Wash, Near Monrovia, Cal.**

## Describes various types of roadway embankment protection employed on this road, including reinforced concrete blankets, rail fences, steel jetties and rail-crib dikes

### PART II*

POSSIBLY the most interesting and effective of the various types of bank protection that have been employed by the Santa Fe in the strengthening and protection of its lines against flood damage, is the reinforced concrete blanket that was used so extensively along its Mojave Gap line change in Arizona, which, as mentioned in Part I, is designed to withstand the most severe conditions of erosion, wave action and streambed scour. To these ends, the fundamental features of the blankets are their physical strength as slabs, securely interlocked to act as a continuous pavement; the fact that they are laid up against only carefully compacted fills to insure solid backing; and the further fact that they are not only carried up to a height of five feet above maximum high water to prevent topping by the water under extreme conditions, but are extended deep enough into the waterway channel to preclude any possibility of their being undermined. In this latter regard, it is interesting to note that the blankets facing the fills of the Mojave Gap line change were carried down a maximum vertical depth of 30 ft. below the streambed as a precaution against a highly saturated movable bed condition which prevails at flood stage.

Still another feature of those sections of blanket installed where extreme wave action may be expected, or where the high watermark is close to the track subgrade, is the provision along their top edge of a concrete curb or splash wall, designed to turn waves back into the stream if they should reach the top of the wall, preventing their breaking over the top under even the most extreme conditions of wind and water action.

The blankets themselves were built up in sections 60 to 61 ft. long, with keyed expansion joints between sections. They are all 6 in. thick, and their height, measured along the face slope, varies with conditions, being a maximum of 81 ft. in the deepest section of the Mojave Gap work. At this particular point, the low point of the toe of the blanket, carried down into the streambed on the 1½ to 1 slope of the railroad embankment, lies at a maximum depth of 30 ft. below the normal streambed level. All of the required channel excavation was carried on in the open during a dry period.

The reinforcing in the blanket sections consists of ½-in. round, deformed reinforcing rods, placed in the center of the slabs and spaced 12 in. center to center, both horizontally and inclined up the face. At the expansion joints between sections, the slabs are separated by strips of ½-in. expansion board, 5½ in. wide, and at these points are keyed together by a series of ⅝-in. steel dowels, 24 in. long, spaced 2 ft. center to center. These dowels, painted with red lead before being surrounded by the concrete in the slab construction, have one end free to move in a metal sleeve.

The splash curb provided on certain sections of the wall is irregular in section, its essential feature being that its splash face is normal to the face of the blanket,

* Part I of this article describing changes in alinement, etc., appeared on page 569 of the October 11, 1941, issue of Railway Age.

in which position it will turn waves back into the stream, rather than allow them to wash over onto the embankment. These curb sections were poured in place in lengths corresponding to the lengths of the blanket sections, with expansion joints between successive lengths consisting of pieces of ½-in. expansion board and a single steel dowel. The curb sections are keyed to the blanket sections by the upright reinforcing rods in the latter, which are carried up into the curb, alternate bars being bent forward toward the splash face.

### Steps in Blanket Construction

The first step in the construction of a section of blanket, regardless of its length, was to excavate for its submerged toe on a continuation of the 1½ to 1 slope of the embankment to be protected, the excavated material being used for the construction of the embankment itself. Through Mojave Gap, this work was done with draglines, the material being placed directly in the fills.

After the slope face to receive the blanket had been carefully graded and hand tamped, the steel reinforcing mat for the blanket was built up in place and was given uniform support at the proper level above the grade on small precast concrete blocks. The concrete for the blanket, using native aggregates from Sacramento wash, was prepared in a 1-yard mixer, and was handled from the mixer to the blanket by means of a dragline equipped with a 90-ft. boom and a 1¼-yd. bucket, operating either from the top of the fill or in the streambed, as conditions dictated. Each section of blanket between expansion joints was poured monolithic, pouring being at an average rate of approximately 1,000 sq. ft. of blanket an hour. In fact, unless interrupted by unavoidable conditions, the full length of each blanket was poured continuously, the longest blanket, for example, 3,000 ft., being built in one continuous pour for eight days, working 24 hours each day.

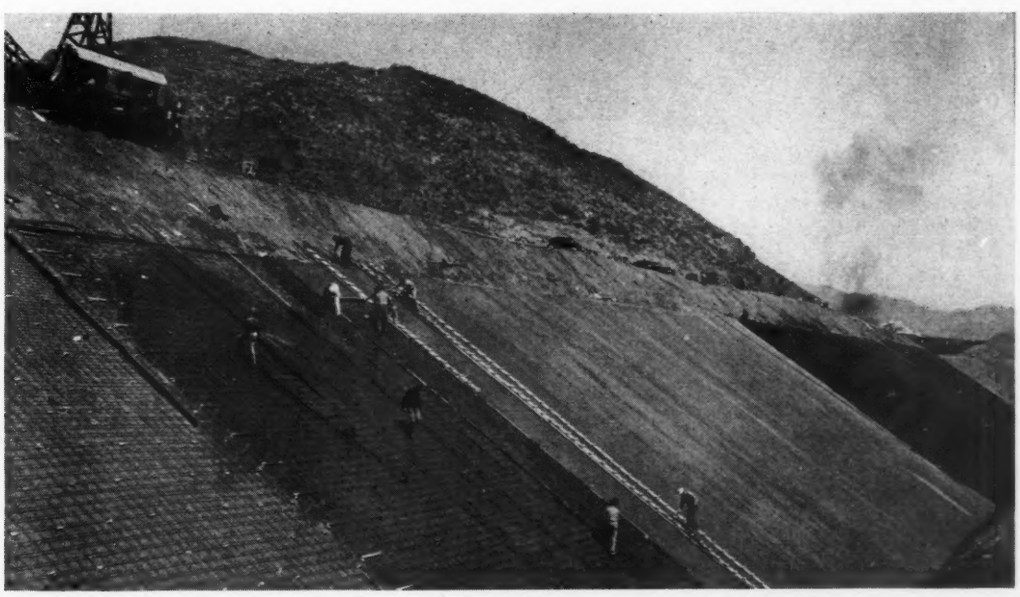
To secure proper curing of the concrete, the blankets were coated with a surface compound designed to minimize evaporation. When the concrete had set sufficiently, the trench excavated for the blanket toe construction was back-filled to the normal streambed level, employing material brought directly from the channel-widening operations in large-capacity carryalls. To secure the greatest density in the back-fill, compaction methods similar to those used in making the railroad fills were employed, including spreading the material in thin layers, rolling, and the addition of moisture when required.

**Heavy Rip Rap and Three Lines of Steel Jetties Protect This Section of the Main Line Along Cajon Creek, in California**

All of the work in connection with the Mojave Gap line change, exclusive of the bridge and track work, was done under contract by Morrison & Knudsen Co., Inc., Boise, Idaho. The bridge erection and track work were handled by company forces, the bridge steel for the several structures having been furnished by the American Bridge Company and the Bethlehem Steel Company.

### Special Features of Rip Rap Protection

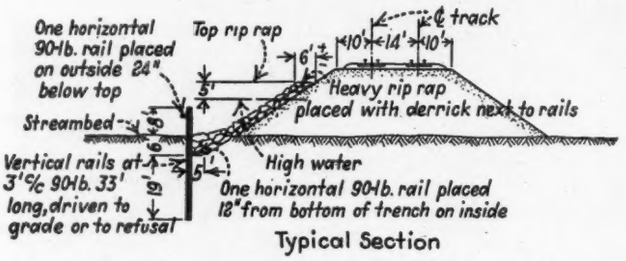
Wherever the Santa Fe has installed rip rap bank protection along the fast streams in its Western territory in recent years, it has given more than usual attention to both the character and size of the rock and to the method of anchoring it in position as a precaution against undermining and raveling. An example of this is seen



**Constructing the Long and Deep Reinforced Concrete Embankment Blanket Along Sacramento Wash, Through Mojave Gap, in Arizona**

in the extensive rip rap protecton afforded along the Cajon Creek line changes described earlier in this article, where, rather than use local rock of questionable weight and durability, heavy granite rock was hauled from Riverside, Cal., more than 30 miles distant.

In every case, this rock was placed with care to form a continuous, closely-interlocked stone blanket from three to five feet thick, to a height of five feet above maximum high water, and with a top edge formed of derrick-size pieces as a special precaution against wave action. In


One horizontal 90-lb. rail placed on outside 24" below top
Top rip rap
℄ track
10' 14' 10'
6'
5'
Heavy rip rap placed with derrick next to rails
Streambed
Vertical rails at 3' c/c 90-lb. 33' long, driven to grade or to refusal
High water
One horizontal 90-lb. rail placed 12" from bottom of trench on inside
Typical Section

**Section Through Embankment, Showing Typical Features of Rip Rap and Rail-Fence Protection**

addition, in all cases, the rip rap blanket was keyed into the streambed to a depth of five feet or more, depending upon conditions, this being done in a trench excavated for the purpose and subsequently tightly backfilled. This latter feature of anchoring the toe of the blanket was considered of importance under all conditions to prevent undermining of the rock through streambed scour, and, in fact, of such importance, that wherever severe scouring action was anticipated, special precaution against undermining the rip rap was taken in the form of rail fences or dikes, or two or more lines of steel jetties.

## Rail Dikes Anchor Rip Rap

The rail dikes employed at various points along Cajon creek, and elsewhere in this same general territory, are of several different types, depending upon conditions, but, in general, they are all similar in that they consist of a line of second-hand 90-lb., 33-ft. rails, driven vertically along and tight against the buried toe of the rip rap blanket, with one or more horizontal lines of rails tying the vertical rails together, and anchored back into the roadbed embankment at intervals by means of cables. In some cases the vertical rails have been driven on 3-ft. centers, while in others they have been driven on 6½-ft. centers; in all cases, however, they were driven to rock, or into the rock, if possible, or to a top height of eight feet above the streambed. The rails are placed with their bases toward the track, and, in most cases, have been driven by means of a crawler-mounted gasoline dragline, operating in the streambed, equipped with special leads and head plate, or cap, fitting over the rails to hold them in line. Employing a 9-B-2 steam hammer, little difficulty has been encountered in driving the rails down, although in many cases this has been hard. In certain cases, where driving was especially difficult, the rail ends were cut to a point with an acetylene torch to speed up the work and insure adequate penetration.

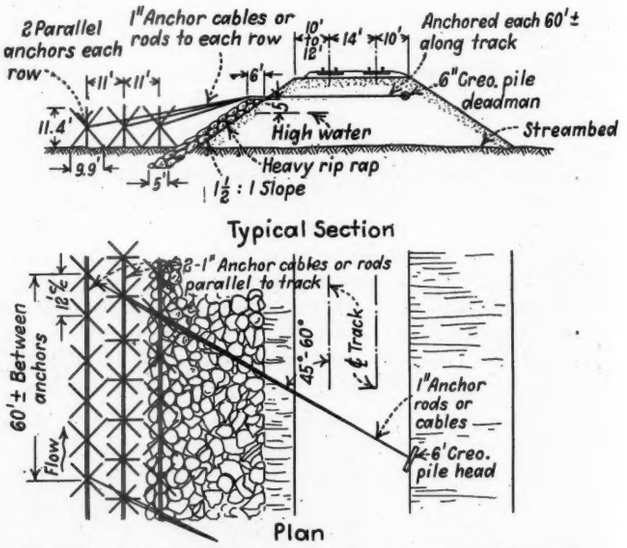
Where the vertical rails have been placed on 3-ft. centers, either one or two horizontal lines of rails have been employed. One line is always located approximately three feet from the top of the rail fence, on the stream side, with the ball outward, while the second line of rails, if employed, is located on the embankment side of the fence, ball outward, at the base of the rip rap trench, five to six feet below the surface of the streambed. Several methods have been employed to fasten the horizontal rails to the vertical rails, but that used most extensively and with the greatest success, has been a U-bolt and plate assembly made by the company in one of its shops.

Where the vertical rails have been spaced on 6½-ft. centers, four horizontal lines of rails have generally been employed, equally spaced between a point three feet from the top of the fence and the bottom of the rip rap trench, which results in a spacing of approximately three feet. The exact type of fence employed at different locations has depended largely upon the ground conditions encountered and the severity and character of stream flow expected, more vertical rails being used, for example, where the penetration was restricted or where the streambed was known to be particularly unstable during flood periods.

In all cases the rails in the horizontal lines are joined with angle bars, and the fences as a whole are tied back into the fill by means of second-hand steel cable ¾ or ⅞ in. in diameter, at intervals of 33 ft. These individual cable ties are each anchored deep in the fill to creosoted pile-butt deadmen, three to five feet long. So constructed and anchored, the rail dikes insure that the toe rock of the rip rap blankets cannot be dislodged and rolled out into the stream, permitting the progressive breakdown of the remainder of the blanket.

## Steel Jetties Used

Another method that has been used on the Santa Fe to accomplish this same purpose of increasing the stabil-




**Section and Plan, Showing Typical Features of Steel Jetty Construction and Installation**

ity of rip rap protection, is the steel jetty system, this system affording protection through retarding the rate of stream flow and erosion along the toe and lower face of the rip rap, rather than forming a barrier to the movement of the rip rap itself, as in the case of the rail dikes. The steel jetty systems that have been employed, including two proprietary types, are largely similar in general design and action. They consist of two or three parallel lines of individual jetty units, the different units being laced together securely in the different lines by means of cables or rods. The individual units consist of a criss-crossed arrangement of four or six structural steel angles, 15 or 16 ft. long, bound together at their points of intersection and inter-tied elsewhere throughout

**A Section of Rail Dike Along Cajon Creek, in California, Designed to Prevent Dislodgment of the Rip Rap in the Event of Undermining**

their lengths with wires, forming web-like structures, with an overall height of approximately 12 ft. These units, built at the site of installation, are set up in the different lines, 12 ft. 6 in. center to center, the parallel lines themselves generally being spaced likewise 12 ft. 6 in. apart to insure uniform permeability for water through and about the individual units.

The lines of jetty units are not fixed with respect to each other, but each line, at intervals of approximately 60 ft., is held in place by means of rod or cable tie-backs which extend through the railroad embankment to pile-head deadmen on the back slope. All of these tie-backs are carried back at an angle of 45 to 60 deg. with the longitudinal centerline of the jetty system to compensate for any tendency for the units as a whole to move downstream under the pressure of flood water.

Erected directly on the streambed adjacent to the face to be protected, the jetty systems follow the contour of the bed and retain that relationship, regardless of any scour which may take place. Under heavy stream flow, they function to reduce the velocity of the water passing through them, especially as they enmesh and hold vegetation and other debris carried down with the water, thereby protecting the bank against erosion and scour. That this retarding action takes place has been demonstrated in many instances, and is best evidenced by the fact that in streams carrying a considerable volume of sand or silt at flood stage, much of this material is settled out within the area of the jetty system, with the tendency to build up and strengthen the streambed along the toe of the fill protected, rather than permit erosion.

All of the various types of bank protection described have been employed adjacent or in relation to bridge openings, but at several such points, where the function of the protection afforded is to deflect head-on currents as well as to prevent side scour, the Santa Fe has employed various types of masonry walls and dikes. One of the most unusual of these to be built in recent years, known as a rip rap rail-crib dike, was constructed in connection with a bridge over Santa Anita wash, near Monrovia, Cal., where early in 1940, flood water left its normal channel and cut deeply around one end of the bridge and overflowed the tracks.

The rip rap rail-crib dike built, 97 ft. long and adjacent to and in line with the upstream side of the east abutment, consists essentially of two lines of second-hand 90-lb. rails, 6 ft. apart, driven deeply in the ground to form a retaining crib for a vertical wall of heavy rip rap. In this crib, which was built in an excavation made for the purpose, and extended up to a point above the track level, the rails in each of the two faces were spaced on 3-ft. centers and were tied together by four horizontal lines of rails at intervals of four feet, beginning at a point near the top. The two faces of the crib were then tied together securely at the four-foot levels of the horizontal face rails by means of short tie rails, the entire assembly being fillet-welded at all points of contact between rail sections.

When completed as a crib, it was filled throughout to the top with derrick-size rip rap, and was then backfilled on both sides, to a point near the top of the back side and to normal streambed level on the wash side. Massive and securely anchored, it is expected that the crib dike will prevent a repetition of the damage experienced here in 1940.

All of the line change and embankment protection work described has been planned and carried out under the general direction of G. W. Harris, chief engineer of the Santa Fe system, and under the immediate direction of M. C. Blanchard, chief engineer of the Coast lines of the road. The extensive field operations in connection with this work were under the immediate supervision of R. L. McDaniel, construction engineer.

# Strike Called

**The non-operating unions on Thursday issued a statement objecting bitterly to the Emergency Board's report, but did not specifically announce that they would strike.**

AMID blasts of indignation and contentions that the Emergency Board is neither fair nor just, the operating brotherhoods have rejected the recommendations of the Board and have set 6 a. m. on December 7, 8 and 9 for a strike. The railroads have accepted the recommendations although they are burdensome. The Emergency Board has adjourned and will not convene unless called by the President. The controversy now rests entirely in the hands of the President.

The five transportation brotherhoods expressed their dissatisfaction immediately after the report was issued, contending that the increase was insufficient and temporary. "There's nothing more to be done by us," A. F. Whitney, president of the Brotherhood of Railroad Trainmen declared. "We're all set to strike and it won't take five minutes to put our strike into effect."

Carl J. Goff, assistant president of the Brotherhood of Locomotive Firemen and Enginemen, asserted that all the strike prevention methods provided in the railway labor act have been exhausted and that a nation-wide strike can be averted "only by railroad management agreeing to a wage rate which will adequately compensate employees for the services they perform."

The general chairmen of the transportation brotherhoods, who at a meeting on November 7 rejected the recommendation of the Board and urged their chief executives to set a strike date, termed the "temporary pay bonus" an insult and referred to the Board as "five wrong men."

Following this meeting Mr. Whitney stated that De-

cember 5 had been set for the strike. However, on November 13 the five operating brotherhoods announced that the dates are December 7, 8 and 9. On each day, according to present plans, one-third of the employees in each of the three territories will walk out.

The 14 non-operating brotherhoods withheld comment at the time the report was issued and called a meeting of their general chairmen at Chicago, on November 12 and 13. At the time of going to press, no decision has been made public but it was anticipated that the report would be rejected and a strike date set. According to George M. Harrison, president of the Brotherhood of Clerks, the Boards' report left the non-operating employees so far behind the wage scales of the rest of the nation's industrial workers that they are lonesome.

While the operating brotherhoods were expressing themselves, Wayne L. Morse, chairman of the Board, on November 10 made a statement in San Francisco, Cal., where he had gone at the direction of the President, to the effect that a strike would be unjustifiable and that he doubted that the workers would walk out. A strike, he said, would irreparably damage the judicial processes provided for in the Railway Labor Act. "I am confident," he continued, "that the leaders of railroad labor are too loyal to the trust they owe their men, and are too familiar with the facts developed before the Board to make the grievous mistake of leading their men into an unjustified strike. The issue is whether we shall have government by law or by pressure groups."

Evidence that the operating brotherhoods realize that their excessive demands made have jeopardized their position appeared during the hearings when they did not stress their demands and concluded their arguments with such statements as "Do not send the boys away without a penny." Unconfirmed reports now in circulation are to the effect that the five operating brotherhoods changed their attitude during the hearings and, off the record, made known to the Board their willingness to accept a flat daily increase which was materially less than the original demand of 30 per cent. The change in position, according to these reports, is due to the feeling of members that a percentage increase, while favoring the higher paid men, is not of material benefit to the lower paid brackets, and that a flat daily increase would be more equitable in that it would offset equally the increasing costs of living which are common to both groups.

These reports also indicate that the five transportation brotherhoods are now relying upon precedents established by Presidents in the past. They hope that the President will call representatives of all parties to a conference and force a settlement that is more to their liking.

### General Chairmen Reject Recommendations

The setting of a strike date by the five transportation brotherhoods was preceded, on November 7, by a meeting of the general chairmen, who rejected the recommendation of the Board for a 7½ per cent pay bonus and urged their chief executives to execute the strike order authorized by the members on September 5. The report of the general chairmen to their chief executives said in part:

"Railroad workers who are loyal, faithful employees, and to a man staunch, true Americans, have a perfect right to be righteously indignant and dissatisfied with the Board's recommendation. Railroad employees, who are entitled to a square deal and a decent increase, regard the recommendation of a 7½ per cent temporary pay bonus as an insult. They say that it reflects no credit whatever on the five wrong men who sent the report to the President, and it is wholly unacceptable to men who have served faithfully and have waited patiently since 1938 for wage recognition."

While the general chairmen of the operating brotherhoods were in session, the railroads accepted the Board's recommendations and issued the following statement:

"The carriers' conference committees representing eastern, western and southeastern railroads announced that, while they are disappointed in the recommendations of the President's Emergency Board in the railway rules, wages and vacation disputes, and despite the very heavy burden it imposes upon the railroads of the country, they have concluded to accept the Board's recommendations with respect to these issues. A full and fair hearing was held before the President's Emergency Board as provided by law and the committees feel that in this time of National Emergency, in the interest of National Defense, and in keeping with the President's address to the delegates to the International Labor Office, the Board's recommendations should be accepted."

On the same day Wayne Morse, chairman of the Emergency Board, made the following announcement:

"The President's Emergency Board has adjourned and it will not reconvene unless called by the President. The railway case now rests entirely in the hands of the President. The Board proposes to stand on its record and it believes that its report to the President speaks for itself. The members of the Board hope that all interested parties, including public groups, will study the report very carefully before reaching final judgments. The issues involved are so vital to the welfare of the entire country that hasty judgments should be avoided."

### N. I. T. League Protests

Protest against the wage increase was voiced by the National Industrial Traffic League through its president, J. E. Bryan, general traffic manager of the Wisconsin Pulp & Paper Manufacturers Traffic Association. Condemning the policy adopted by the Emergency Board in reaching its decision to raise rail workers' pay at the expense of shippers and train travelers by having the carriers obtain blanket rate increases to meet the added payroll costs, Mr. Bryan said that the Board "seemed to be much concerned over the possible inflationary effects of the increase in railroad payrolls, because of the added money it would give the men to spend. It overlooked the much more serious inflationary effect of adding, at one swoop, $270,000,000 (the estimated cost of the payroll increases recommended by the Board) a year to the cost of American products."

Mr. Bryan added it was difficult to see how American industry can stand such a heavy addition to its transportation cost, in addition to the increased taxes and other burdens it had been required to assume in the last 18 months.

Mr. Bryan pointed out that the high level of freight rates already had brought about a great shift in industry, bringing manufacturing plants closer to sources of supply and reducing hauls. A further increase in the existing rates, he warned, would accelerate this tendency of industry to centralize and actually would reduce the gross receipts of the railroads, instead of increasing them.

"It is to be regretted that matters of railroad wages and working rules could not have been decided on the same record," he stated. "If the railroads could have had some relief from the burdensome rules perhaps they could have saved enough money to grant the comparatively reasonable wage increases without resorting to a rate increase."

# Facts or Fiction About the RRs

There are many conflicting contentions about the railroads and the welfare of their employees — The emergency board examined many of these claims and gives impartial judgment on their degree of truth

**The "emergency board" which reported on the railway wage dispute to the President last week did a job of unusual thoroughness and objectivity—especially when considered in relation to the limited time at its disposal.**

**The two sides to this controversy made a great many contradicting claims—and similar conflict exists in the "facts" of the present railroad situation currently presented to railroad employees. For example:**

**Conflicting contentions are made as to the actual degree of current railway prosperity. It is unprecedented, or does it merely seem large by comparison with the lean 'Thirties? Is the great increase in railway efficiency due, largely, to greater effort by employees, or to other causes? Can the railways afford to increase wages without securing greater income? Are railway wages on the average higher or lower than those of other industries?**

**The policy of the railroad industry toward wage questions (and thus the industry's relative treatment of its security owners and customers) is a matter which is to an important degree determinable by the rank and file of railway employees, in the policies which they support through their union organizations. Unless employees know the true answers to such questions as those in the preceding paragraph, they cannot influence railway policies effectively *even in their own selfish interest.***

**In the midst of contradicting contentions, the employee who really wants to get at the truth ought to have the opportunity to know what this able and disinterested board has to say on these questions. Its conclusions and findings were published in our last week's issue. Following are further noteworthy excerpts from its report which disclose why these conclusions were reached:**

The Board summarized the contentions of the non-operating unions as follows:

"At the present time, railroad revenues are soaring, properties are being improved, competition is being mastered and financial burdens are being lightened. Hence it was concluded that, if ever there was a time when labor might justifiably press for a larger share in the fruits of the railroad industry, that time is now.

"Apart from the improved financial position of the railroads, the employees presented a number of reasons as justifying wage increases and which were summarized under five main heads: (1) wages in the railroad industry have not improved for twenty years; (2) railroad employees possess a high degree of skill in comparison with employees in other industries and for which they are not adequately rewarded; (3) railroad wages are lower than those in other and corresponding employment; (4) railroad employment is irregular; and (5) the cost of living is rapidly advancing."

The gist of the contentions of the operating unions, in the language of the Board, was as follows:

"The contention of the operating employees that their wages do not fairly and adequately compensate them for the services they render and their consequent proposal for a wage increase rest upon the following considerations:

1. The kind and character and characteristics of the work;
2. The increase in the service performance and responsibility of the men since the fixation of wages at substantially the present level;
3. The increased service performance which is being demanded, and will be demanded of them in the emergency period, upon which we have entered and which will undoubtly continue for many months and probably for many years;
4. The wages paid and wage trends in other industries;
5. The rise in the cost of living which has already ensued and the certainty of further marked rises.

"The operating brotherhoods joined with the fourteen organizations in expressing confidence that the current improvement in the volume of business is not a temporary one, but will continue after the present emergency as it did for a long period after the first World War."

The main questions raised by the unions' contentions may be condensed as follows:

A. Are railway revenues "soaring," is competition being mastered, are financial burdens being lightened and is the present traffic increase a permanent one?

B. Is increased performance (ton-miles) per employee due to greater employee efficiency

C. Have the hazards and strain of railway employment increased to a degree justifying increased compensation?

D. How do railroad wages compare with those of other industry?

E. Is railroad employment more irregular than that of other industries?

F. How much have living costs increased and do these justify wage increases?

Excerpts from the Board's report giving its answers to the foregoing questions (which we have lettered to correspond with the questions) follow:

### A.—Railway Earnings Have "Soared"—to 4 Per Cent

"During the 1920's, railroads as a whole were fairly prosperous and enjoyed good credit which enabled them, from 1923 to 1930, to make gross additions and improvements to road and structures of more than 3½ billion dollars and to

equipment of more than 3 billions. During the 1930's, on the other hand, the railroads, like most other industries, suffered the devastating effects of the most severe and prolonged business depression in the country's history. For Class I railroads, the rate of return on undepreciated book value, which has averaged better than 4 per cent during the 20's, declined to an average of 2 per cent during the following decade. In consequence, by 1940, about ⅓ of these railroads in point of mileage, were in receivership or bankruptcy trusteeship, where most of them remain.

"What is peculiar, however, to the railroads as distinct from most other industries is that, during this prolonged period of depression, there developed clear indications of a downward, non-cyclical, trend in traffic, due to the increasingly severe competition of other forms of transport. This trend is indicated by the extreme righthand column of Table I, Appendix E, (i. e., the table reproduced herewith) which shows the railroads in 1939 as enjoying only 77.7 per cent of the share of total "potential" traffic that they enjoyed in 1928. The menace of this situation, however, was even greater than would be indicated by the percentage figure just stated; for the new competition, in addition to taking traffic from the railroads, compelled them to make considerable reductions in freight and passenger rates in order to retain such a share as they did, in fact, retain.

**"Even for this current year, Class I railroads will probably have earned a return (after payment of operating expenses, rentals and taxes) of only about 4 per cent on the undepreciated book value of their transportation property plus working capital.**

"Needless to say, the degree of prosperity of the railroads as a whole, or of any railroad in particular, cannot be judged solely or even mainly by reference to the income statement of a single year. What, then, is the future outlook of the railroads in view of their recent remarkable recovery of traffic and of revenues? The recent current market quotations, not only of railroad stocks but also of railroad bonds, indicate that the general attitude of investors is still pessimistic.

"On the basis of the exhibits and testimony presented at these hearings, and on the assumption of no change in freight and passenger rates, we are of the opinion that gross revenues are likely to increase materially, though not spectacularly, during the next year or two of the national defense program. The extent, however, to which such an increase in gross revenues could be expected (in the absence of wage increases) to improve net railroad operating income, as well as net income after fixed charges, is uncertain.

"The very economic forces that have led to the present demand for increased railroad wages will probably increase the prices that the railroads must pay for materials, supplies, and equipment. State and local taxes are also likely to become an increasing burden on the carriers.

"As to what may be in store for the railroads when the period of national emergency ends, or at least when the generally anticipated period of business depression following this emergency begins, the record is full of highly interesting surmises based partly on the recent history of transportation, and partly on the anticipated effects of the national defense program. . . . The carriers point with anxiety to the current program, realized and prospective, for the development of airplanes, roads and trucks, and internal waterways, as indicating the probability that, when the "artificial" and temporary period of national emergency is over, the railroads will face competition of a more intensive and serious nature than ever before.

**"This competition the carriers hope to be able to meet successfully. Their success, they believe, depends on the attainment of a financial position which will permit them to engage in an extensive program of modernization and to reduce railroad rates to a point where traffic will not be pulled unduly to other modes of transportation.**

"A permanent or indefinitely prolonged increase in wage rates, so the carriers contend, might be fatal to the railroad industry and hence might bring about a catastrophic drop in the employment of railroad labor.

"The outlook for the railroad industry after the end of the present period of national emergency, and in view of the possibly serious menace of revived competition with other forms of transport, is so largely unpredictable that any action taken by us should leave room for the utmost flexibility in the long-run adjustments of railroad wages. For this reason, and in view of the history of railroad wage adjustments indicating the lengthy delays in either upward or downward adjustments of basic railroad wages designed to meet new conditions, we do not feel warranted in recommending any present changes in 'basic' wage rates, other than an increase in the minimum wage on Class I railroads to 45 cents and on other railroads to 40 cents per hour."

## Traffic, Revenue, and Income Statistics of Class I Railways, 1921-1940

| Year | Revenue Ton-miles (billion) | Revenue Passenger-miles (billion) | Revenue per Ton-mile (cents) | Revenue per Passenger mile (cents) | Operating Revenue $ Million | Operating Expense $ Million | Taxes $ Million | Rate of Return on Book Value % | Net Income $ Million | % of Accrued Interest Actually Paid | Average Rate of Dividend on all Stock % | Per cent Actual of "Potential" Traffic |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1921 | 307 | 37.3 | 1.28 | 3.09 | 5,517 | 4,563 | 276 | 2.81 | 314 | .... | 4.09 | .... |
| 1922 | 339 | 35.5 | 1.18 | 3.03 | 5,559 | 4,415 | 301 | 3.52 | 370 | .... | 3.75 | .... |
| 1923 | 413 | 38.0 | 1.12 | 3.02 | 6,290 | 4,895 | 332 | 4.28 | 555 | .... | 4.03 | .... |
| 1924 | 388 | 36.1 | 1.12 | 2.98 | 5,921 | 4,508 | 340 | 4.20 | 558 | .... | 4.25 | .... |
| 1925 | 414 | 36.0 | 1.10 | 2.94 | 6,123 | 4,537 | 359 | 4.71 | 701 | .... | 4.48 | .... |
| 1926 | 444 | 35.5 | 1.08 | 2.94 | 6,383 | 4,669 | 389 | 4.96 | 809 | .... | 5.20 | .... |
| 1927 | 429 | 33.6 | 1.08 | 2.90 | 6,136 | 4,574 | 376 | 4.28 | 673 | .... | 5.26 | .... |
| 1928 | 433 | 31.6 | 1.08 | 2.85 | 6,112 | 4,428 | 389 | 4.61 | 787 | .... | 5.33 | 100.0 |
| 1929 | 447 | 31.1 | 1.08 | 2.81 | 6,280 | 4,506 | 397 | 4.81 | 897 | .... | 5.99 | 98.3 |
| 1930 | 383 | 26.8 | 1.06 | 2.72 | 5,281 | 3,931 | 349 | 3.28 | 524 | .... | 6.01 | 97.4 |
| 1931 | 309 | 21.9 | 1.05 | 2.51 | 4,188 | 3,224 | 304 | 1.99 | 135 | 94.58 | 3.99 | 94.1 |
| 1932 | 234 | 17.0 | 1.05 | 2.22 | 3,127 | 2,403 | 275 | 1.24 | −139 | 92.53 | 1.12 | 87.2 |
| 1933 | 249 | 16.3 | 1.00 | 2.01 | 3,095 | 2,249 | 250 | 1.82 | −6 | 85.95 | 1.16 | 87.2 |
| 1934 | 269 | 18.0 | 0.98 | 1.92 | 3,272 | 2,442 | 240 | 1.78 | −17 | 83.10 | 1.62 | 88.2 |
| 1935 | 282 | 18.5 | 0.99 | 1.94 | 3,452 | 2,593 | 237 | 1.93 | 8 | 78.25 | 1.54 | 85.8 |
| 1936 | 339 | 22.4 | 0.97 | 1.84 | 4,053 | 2,931 | 320 | 2.57 | 165 | 75.63 | 2.11 | 85.3 |
| 1937 | 361 | 24.7 | 0.94 | 1.79 | 4,166 | 3,119 | 326 | 2.27 | 98 | 76.82 | 2.07 | 84.9 |
| 1938 | 290 | 21.6 | 0.98 | 1.87 | 3,565 | 2,722 | 341 | 1.43 | −123 | 69.21 | 1.02 | 77.7 |
| 1939 | 333 | 22.7 | 0.97 | 1.84 | 3,995 | 2,918 | 356 | 2.25 | 93 | 70.54 | 1.55 | 78.5 |
| 1940 | 373 | 23.8 | 0.95 | 1.75 | 4,297 | 3,089 | 396 | 2.59 | 189 | 69.16 | 1.95 | .... |

### B.—Efficiency of R. R. Employees

"The employees presented numerous exhibits showing the remarkable increase in traffic moved per hour of service. For example, gross ton-miles per service hour of operating employees increased almost three-fourths from 1930 to 1940. It was contended that these increases in productivity imply greater efficiency, skill, and responsibility of the men. Particular stress was placed on the increased quantity of goods handled per man and the greater speed in handling traffic.

"The record does not demonstrate that all railroad employees are skilled workers; or that the skill, effort, and responsibilities of railroad employees, taken as a whole, have increased in the last few years, except as heavier traffic means more responsibility. However interesting ratios of traffic units to man-hours of work may be to statisticians, such ratios offer very little help to the Board in appraising the qualitative nature of the work performed by railroad men, or the quantitative magnitude of their efforts, or the

specific contribution of their labor to the output of the industry."

### C.—Hazards of R. R. Employment

"Much was said in the course of the proceedings about the physical hardships of railroad work. Witnesses for the employees supplied vivid descriptions of the work outdoors, frequently in inclement weather, of many of the yard service crews, and the maintenance of way men; the physical effort required of the firemen in shoveling great volumes of coal; the dangerous work of the switching crew; the hazards involved in the brakemen's and conductors' work in inspecting the train while en route; and the great nervous and physical strain to which the engineer of the high-speed passenger train is subject. In answer the carriers maintained that improved tools and machines had not only greatly reduced the burden of manual labor—a point partly conceded by the employees—but that in the process the hazards of railroad employment and the discretionary judgment required of the men had also been reduced.

"As evidence of reduced hazards of employment, they introduced statistics showing over two decades a truly remarkable decline in the accident rate among employees. In further response to the contention that increased train speed had increased nervous strain, they stated that some portion of the benefits of greater speed had gone to the operating employees who were enabled to earn their daily wage in fewer hours.

"The greater speed and mechanization of train operations may have affected the skill required of the train employees and the nervous hazards to which they are subject, but these matters are difficult to measure. Finally, it should be noted that much of the testimony of the employees relates to specific occupations and cannot be regarded as an argument in behalf of a uniform percentage increase in the wages of all employees in the operating group or of a uniform amount of increase per hour for all employees in the non-operating group."

### D.—Wages on the Railroads and in Other Industry

"The high wages now being paid in some defense industries are the price that the nation pays to lure labor from other employment or from idleness. In part the high wages are a premium for the unstable nature of the new employments. Railroad labor cannot justifiably measure its deserts with reference to the more spectacular wages being paid in some defense industries.

**Monthly Full Time Earnings: Employees of Class I Railroads and Manufacturing Industries, January 1940—June 1941**

| Date | Monthly Full Time Earnings: Railroad Employees | Monthly Full Time Earnings: Employees in all Mfg. Industries | Ratio of Railroad Earnings to All Manufacturing |
|---|---|---|---|
| 1940 | | | |
| January | $165 | $115 | 1.43 |
| February | 154 | 114 | 1.35 |
| March | 160 | 116 | 1.38 |
| April | 158 | 115 | 1.37 |
| May | 159 | 115 | 1.38 |
| June | 154 | 117 | 1.32 |
| July | 159 | 115 | 1.38 |
| August | 162 | 119 | 1.36 |
| September | 155 | 121 | 1.28 |
| October | 165 | 125 | 1.32 |
| November | 159 | 123 | 1.29 |
| December | 163 | 127 | 1.28 |
| 1941 | | | |
| January | 167 | 126 | 1.33 |
| February | 154 | 130 | 1.18 |
| March | 168 | 132 | 1.27 |
| April | 161 | 133 | 1.21 |
| May | 165 | 140 | 1.18 |
| June | 163 | 144 | 1.13 |

"Throughout the period (1929-1940) average full-time annual earnings of railway employees have exceeded the corresponding average for all industries by an amount never less than $275. In 1940 the excess was over $550. In the depression following 1929, moreover, the drop in full-time earnings was less for railroad employees than it was in industry generally. At all times during the period the earnings of railroad employees topped the list or were near the top of the list of major industries. But the figures for full-time earnings of railroad and manufacturing industries for recent months indicate that the advantageous position railroad labor has enjoyed is rapidly being lost. Earnings in manufacturing industries are increasing at a very rapid rate, while railroad full-time earnings are barely increasing.

"It appears that until very recently employees of Class I railways have received more per hour than the average for employees in all manufacturing industries, the differential being smaller for the durable goods than for the non-durable goods industries. Furthermore, wages per hour of railroad labor fell less in the depression following 1929 than did hourly earnings in manufacturing industries. It is important to note, however, that since 1933 and especially during the last year the differential favoring railroad wage-earners has narrowed very rapidly, and currently may actually have been reversed."

### E.—Irregularity of Employment

"The trend of employment has been downward in the 71 Interstate Commerce Commission occupational classes for which the non-operating men presented data. In 1940 the volume of employment was just slightly more than half of the figure in 1926, while the number of freight ton-miles was only one-sixth lower.

"While the evidence on cyclical fluctuations submitted in this proceeding is not as thorough as this Board should have wished, there is a reasonable presumption that the cyclical fluctuations in railroad employment taken as a whole are of about the same intensity as the cyclical fluctuations in general industrial production. The cyclical amplitude of railroad employment is definitely smaller than that of employment in the durable goods industries—with which the employees preferred to make wage comparisons.

"The carriers presented evidence that the amplitude of the seasonal fluctuations in railroad employment is not far from the average for manufacturing industries, and that if four maintenance of way classes are excluded the seasonality is well below average.*

"Whatever else a current increase in wages might do, it cannot benefit the men who have been 'liquidated' from the industry. The burden of instability—whether arising from secular, cyclical or seasonal influences—is not borne equally by the entire railroad labor force. The seniority system shifts the burden largely to the newer employees. Hence any addition to wages as a compensation for instability would accrue in the main to the older employees who enjoy rather steady employment. The variations in instability from occupation to occupation suggest that if an addition were made to wages to compensate for instability, the size of the addition would need to vary from occupation to occupation."

### F.—How Much Have Living Costs Risen?

"The parties agreed on using the Bureau of Labor Statistics index of the cost of living. The employees preferred to measure the rise from August, 1939, the month preceding the outbreak of war. On this base the index of the cost of living in September, 1941, stood at 109.7. The carriers, on the other hand, preferred June, 1937, as the base, on the ground

* The above is equivalent to saying that the long-time trend of railroad employment has been downward—due to competition from other forms of transportation, or to the fact that railroad costs and rates were less of a bargain than potential customers could find in alternative uses for their funds (such as "decentralization") or to other causes; but that "cyclical" and seasonal, i. e., temporary, fluctuations in railroad jobs are no more severe than those in other industry. It seems a fair inference from this that any worsening which employees may have noticed in recent years in their job-opportunities on the railroads arises from the unfavorable long-term trend of railroad employment, and not from cyclical or seasonal factors. But an unfavorable long-term trend—which has its origin largely in competition and railroad costs—is a matter in which employees have a voice equally as strong as, if not stronger than, management. It follows, therefore, that any complaint which employees may have of recent worsening in their job opportunities is a question to which the answer lies largely in their own hands.—Editor.

that this month reflected the situation prevailing at the time the last wage adjustments were made. On this base the index of the cost of living in September, 1941, is only 105.2. Of course the difference between the two reflects the fact that the cost of living was higher in June, 1937, than in August, 1939. Examination of the cost of living index over the entire period since the spring of 1936 discloses that the cost of living was practically at its lowest in August, 1939, and almost at its highest—barring of course recent months—in June, 1937. These facts were duly noted by the Board as well as the reasons assigned by the parties.

"From August, 1939, to September, 1941, the cost of living index advanced 9.7 per cent, but the food component of the index rose 18.3 per cent. It is common knowledge that expenditures on foodstuffs tend to decline, relatively to total expenditures, as income increases. It follows that if an index of the cost of living were available for employees of different income levels, instead of for the wage earning class in general, we should find that the cost of living has risen more for the low income class than for wage earners in general. The Board concludes, therefore, that the rise in the cost of living in recent months is probably understated by published index numbers and that the degree of understatement is largest for employees in the lowest wage brackets.

"The flow of national income is now at a rate of about 90 billion dollars per year, and approximately 73 per cent of this swelling total is being paid out in wages, salaries, pensions and relief—a greater proportion than is recorded for any previous year. Defense expenditures are running at a rate exceeding 1.3 billion dollars per month, and the pace is being stepped up steadily. The huge incomes disbursed by both defense and civilian industries magnify the demand for civilian goods. But the output of civilian goods is not likely to expand significantly, if it expands at all, in the months ahead.

**"This condition alone sets the stage for a dangerous inflation, and the process is being activated by wage adjustments to rising living costs and price adjustments to rising wages—the familiar vicious circle.**

"The hard problem facing this Board is how to square justice to the railroad employees with the national interest. Insofar as the national interest requires a healthy, efficient, and justly treated labor force operating the railroads in these trying times, there is no conflict. But insofar as the national interest requires that inflation be checked, only a vigorous policy by the federal government can save this Board from the charge that it has meted out justice to a deserving body of wage earners by blinking the nation's best interests. No group has more to lose from inflation than the nation's wage earners."

## Other Considerations

The Board, as was set forth in last week's *Railway Age*, recommended an increase of 7½ per cent in wages for operating employees and of 9 cents an hour, plus a paid vacation of one week for non-operating employees; and of higher minimum wages for all classes. As indicated from the above quotations, the basis for these recommended increases was almost entirely the increase in the cost of living. Most of the other allegations made by the unions (i. e., increased efficiency of employees, alleged "soaring" of railway revenues, etc.) were either deemed to be inconclusive or not substantiated.

The unions belittled the carriers' apprehensions as to what will probably happen to traffic when the present defense effort subsides, but, as noted above, the Board took the position that the future was so uncertain that the carriers ought not be saddled with permanent wage increases.

The Board justified the difference in the treatment accorded the operating and non-operating groups, in part, as follows:

"In the non-operating group the range runs from 38 cents per hour for messengers and office boys to $1.21 per hour for claim agents and investigators. In the operating group engineers and motormen head the list with $1.97, and switch tenders and outside hostlers' helpers trail with 71 cents. Clearly, the hourly earnings of the operating men lap over a considerable part of the range of earnings of the non-operating men. Nevertheless, there is a significant difference in the level of hourly earnings of the two groups: the average is 66 cents for the non-operating employees and $1.10 for the train and engine service.

"Engineers and conductors take first rank in the amount of earnings and second rank in stability of employment. Among the non-operating groups four have comparatively high earnings and stable employment—gang foremen, station agents and telegraphers, skilled workers on maintenance of equipment, and clerical workers. At the bottom of the list are found extra gang men, other maintenance of way laborers, and station and platform laborers. The direct correlation between approximately full-time average earnings of an occupation (an average for employees with some service in all twelve months) and the degree of stability of employment in the occupation is a fact of outstanding social importance. Low hourly rates and unstable employment seem to shadow one another.

"These facts on hourly and annual earnings provide some guidance to the Board in making its recommendations for wage adjustments. The problem of unstable employment and low incomes cannot be solved by adjusting wage rates per hour or day. However, the problem of low incomes can be met in part by adjusting rates. In the judgment of this Board it is desirable, therefore, to give the greater advances to low-paid employees."

The Board also considered extensive allegations by A. F. Whitney "that the railroads are being drained of millions of dollars through financial waste and mismanagement." Among the contentions of Mr. Whitney was that salaries of railroad executives were excessive and that some financial practices of some of the railroads in the past have been reprehensible. Said the Board:

"We do not require a set of formal exhibits (some of those offered on the subject by Mr. Whitney having been excluded by us, in response to valid technical objections by the carriers' counsel) in order to know, what the entire investment world knows, that some of the purchases made during the 1920's, both by railroad holding companies and by railroads themselves, of large stock equities in other railroads have resulted in very great losses to investors.

"With full recognition of this fact, and with full awareness of the probability that episodes such as certain of those referred to by Mr. Whitney were a contributory cause of the unenviable state of railroad credit today, we are nevertheless convinced that, in quantitative terms, they were a cause of only minor significance. Moreover, no recommendations that we are here making in this report with respect to proposed wage increases have been tempered or modified in any way by an effort to protect individual railroads from the consequences of these financial mistakes."

On the matter of the need for the railways of additional revenues to meet the wage increases which the unions demanded, the brief for the non-operating organizations concludes that the roads are in a position to pay a much higher wage "without creating any necessity for increasing freight and passenger rates," because a greatly increased tonnage can be carried without a commensurate increase in operating expenses or number of employees. On the contrary, the Board held that a considerable share, at least, of the cost of our proposed wage increases (much smaller, of course, than those demanded by the unions) will necessarily be borne by the general public in the form of higher transportation rates (unless the alternative of governmental subsidy should be chosen as the lesser evil).

On the subject of consolidation and co-ordination the Board said, in part:

"The opposition to consolidation has come mainly from some railroad executives interested in maintaining existing competitive advantages, from certain shippers who wish to continue to enjoy access to competing railroads, and from railroad labor.

"While there is room for a great difference of opinion as to the amount of actual savings which consolidation can effect, more rapid progress toward unification is highly desirable. However, under modern conditions, the proper co-ordination of *all forms* of transport facilities should perhaps receive even greater attention. The possibilities of co-ordination of the facilities of different rail carriers without complete merger of operations is also promising."

### Adequacy of Railway Revenues

The carriers presented an elaborate exhibit with the object of establishing their contention that the railroads as a whole require a minimum of a billion dollars a year in net railway operating income in order adequately to maintain their properties and to re-establish their credit, so that ample new capital may be forthcoming from investors—thereby keeping the carriers' facilities adequate to the demands of commerce and sufficiently strong, competitively, and to hold on to their traffic (and, thus, presumably, to halt the long-term decline in railroad employment).

The Board raised a number of searching questions as to this estimate of necessary net railway operating income—and did not concede that the carriers had proved their case as to the exact amount of net railway operating income they need. On the other hand, the Board did approve an important formula, whereby (it seems) the interests of management, of employees, of investors, and the public might be harmonized. This was the definition of "adequacy" of railway earnings offered by the carriers' witness J. W. Barriger and is worded by the Board as follows:

**"Railroad earnings which are adequate to preserve the railroad mechanism in good health as a medium of transport may also be taken as earnings adequate to keep faith with existing investors and to preserve railroad employment as a long-run livelihood."***

* The Board did not say in so many words whether it considered present railroad earnings (estimated at 4 per cent on the investment for 1941) to be either adequate or inadequate to "maintain the railroad mechanism" and "keep faith with existing investors"—*and hence preserve railroad employment.* However, by its insistence that the railroads be compensated for its recommended wage increases either by higher rates or some form of subsidy, it plainly implied that earnings lower than those now being earned would not be sufficient to maintain railroad plant and compensate investors fairly. It follows logically that railroad earnings lower than the present level of 4 per cent would not be in the long-run interest of railroad employees. This appears to be equivalent to saying that in no year since 1929 (which was the last time when earnings exceeded the present 4 per cent) have railroad earnings been high enough to protect the long-run well-being of railroad employees—a conclusion which is certainly of importance to railroad employees and one with which, probably, few of them are familiar.—EDITOR.

OVER 20,000 CONVENTIONS, annual meetings and periodic get-togethers are held annually in the United States, according to a survey recently made by the Railway Express Agency, which serves a large number of the convocations. The movement of exhibits, some surprising in number, size and complexity, is now a highly specialized activity in express service and frequently must be carried on under marked pressure of time. Most of the shows are of short duration, requiring rapid delivery at odd hours, several days in advance of the opening. The expressmen bring exhibits direct to the assigned spot of the exhibitor in the convention hall or hotel. Some commercial and professional exhibits travel on regular itineraries. Even while a show is on, arrangements for the departure of exhibits are made with express representatives on the ground, as often the convention hall must be cleared for the show immediately following.

# No Material Improvement in Car-building Program

ANALYSIS of new freight car deliveries for domestic service during the month of October by carbuilders (railroad company shops excluded) fails to show any material improvement in the industry's program, which remains more than 50 per cent below schedule. Although the 6,620 cars delivered in October represent an increase of 1,576 cars over September's output and the largest monthly production of the current program, 905 cars of this total increase took place in two plants of two of the largest builders in which production during September had been curtailed by labor difficulties.

Settlement of these difficulties, plus the availability of an unusual inventory of materials that had meanwhile accumulated, enabled these plants to attain better-than-anticipated rates of operation in October. Thus one plant, with a monthly rated capacity output of 1,200 cars, increased deliveries from 356 cars in September to 1,032 in October, while the other, with monthly capacity rated at 400 cars, increased deliveries from 188 cars in September to 417 in October. Noteworthy last month was the ability of these plants to exceed or approximate rated capacity output with this materials accumulation.

As compared with the estimate of 15,000 freight cars originally planned for October delivery, last month's output fell short by 8,380 cars and, although results for the industry as a whole showed an improvement over September, production actually decreased in five plants.

Original plans of the industry called for delivery of 6,500 cars in May of this year, and, thereafter, a gradual expansion of operations to 17,000 cars delivered in December, an annual rate of 204,000 cars. In the six-month period, May 1-October 31, output totaled 30,787

**Domestic Freight Car Deliveries Compared with Orders and Planned Production**

Data Covers Car Builders Only
January, 1940 to October, 1941

| 1940 | Orders Placed | Deliveries: Number | Deliveries: Per cent of Rated Operating Capacity (A) | Planned Estimated Production (B) | Loss in Production (Planned Production Less Deliveries) | Backlog of Unfilled Orders |
|---|---|---|---|---|---|---|
| January | 197 | 5,084 | 35.6 | .... | .... | 20,229 |
| February | 166 | 5,142 | 36.0 | .... | .... | 15,253 |
| March | 1,404 | 6,548 | 45.8 | .... | .... | 10,109 |
| April | 792 | 5,400 | 37.8 | .... | .... | 5,501 |
| May | 2,212 | 3,061 | 21.4 | .... | .... | 4,752 |
| June | 4,329 | 1,478 | 10.3 | .... | .... | 8,603 |
| July | 5,766 | 1,543 | 10.8 | .... | .... | 12,826 |
| August | 4,024 | 2,356 | 16.5 | .... | .... | 14,500 |
| September | 8,543 | 2,844 | 19.9 | .... | .... | 20,746 |
| October | 8,674 | 3,586 | 25.1 | .... | .... | 25,947 |
| November | 7,012 | 3,981 | 27.8 | .... | .... | 30,362 |
| December | 5,476 | 4,293 | 30.0 | .... | .... | 34,205 |
| Total, 1940 | 48,595 | 45,316 | 26.4 | | | |
| 1941 | | | | | | |
| January | 6,299 | 4,993 | 34.9 | .... | .... | 34,384 |
| February | 2,728 | 4,057 | 28.4 | .... | .... | 32,991 |
| March | 9,440 | 4,987 | 34.9 | .... | .... | 37,359 |
| April | 12,478 | 5,300 | 37.1 | .... | .... | 44,707 |
| May | 19,513 | 4,670 | 32.7 | 6,500 | 1,830 | 59,104 |
| June | 15,341 | 5,130 | 35.2 | 7,500 | 2,370 | 69,355 |
| July | 6,449 | 5,467 | 38.2 | 10,000 | 4,533 | 70,330 |
| August | 3,145 | 3,856 | 27.0 | 12,000 | 8,144 | 69,307 |
| September | 600 | 5,044 | 35.3 | 14,000 | 8,956 | 65,230 |
| October | 791 | 6,620 | 46.2 | 15,000 | 8,380 | 57,193 |
| Total, ten mos. 1941 | 76,784 | 50,124 | 35.1 | | | |

(A) Based upon rated operating capacity for all builders of 14,300 cars.
(B) Based on carbuilders' plans for increased production effective May, 1941. Planned production called for deliveries during the remainder of 1941 as follows: November, 16,000; December, 17,000.
Source: American Railway Car Institute.

cars as against 65,000 planned. Thus with October production at the level planned for last May, the freight car building program is today five to six months behind schedule and 34,213 cars under planned output.

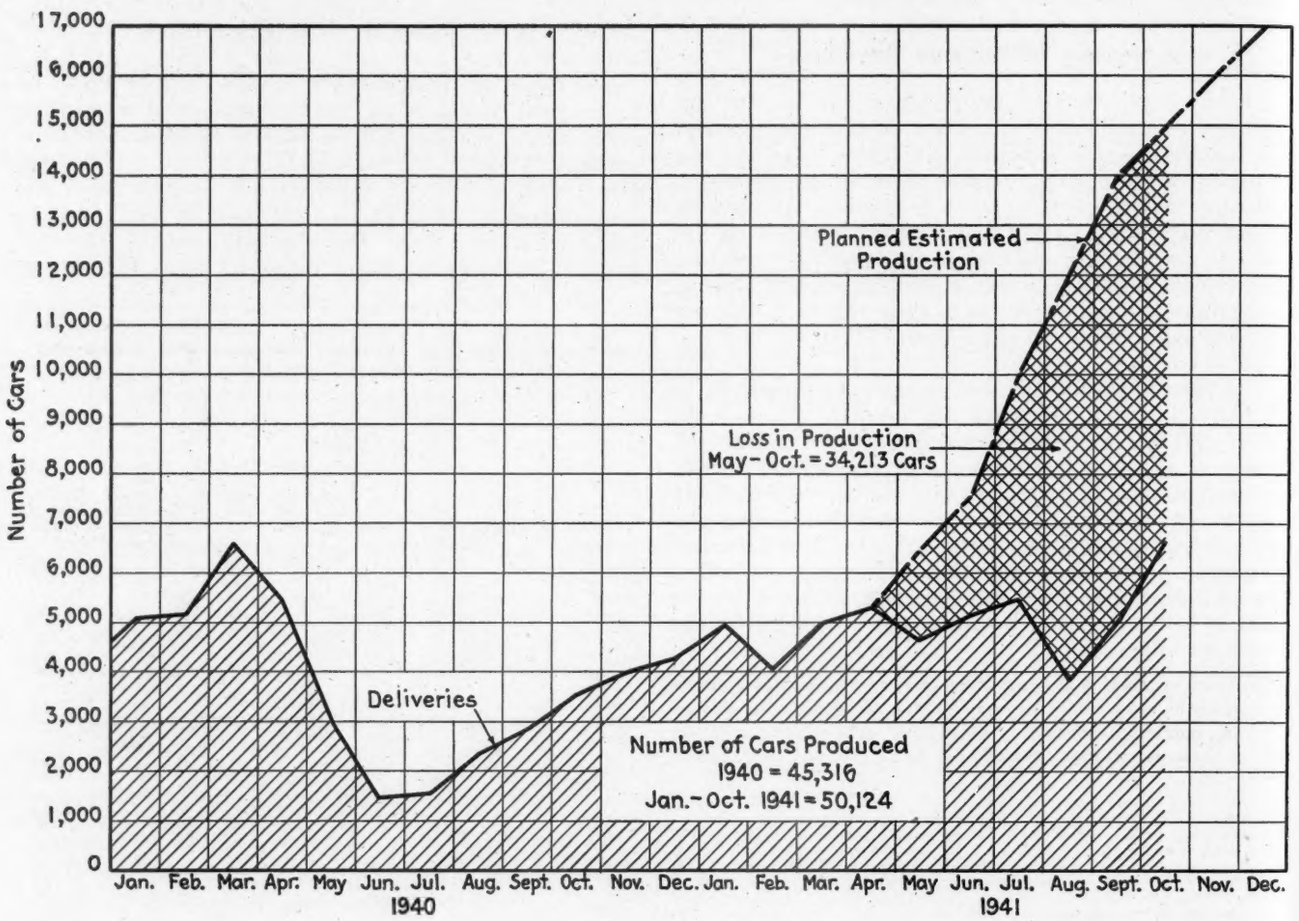
Meanwhile new orders received from the railroads have dwindled to insignificant proportions, totaling 600 cars in September and 791 in October, which is at an annual rate of only 8,346 cars or about 58 per cent of one month's rated output for all builders. Backlog of unfilled orders on carbuilders' books totaled 57,193 cars as of October 31, or the equivalent of 8½ months' production at the October delivery rate. The size of this backlog in relation to current production and the consequent availability to the carriers of only distant delivery dates for newly-ordered equipment has acted as an effective deterrent to the purchase of additional rolling stock.

That continuance of the current lag in the freight car building program will seriously undermine the railroads' efforts to prepare the nation's transportation system to carry the weight of its expanding war effort there can be no doubt. It will be recalled that based on estimates worked on jointly by experts of the Association of American Railroads and economists of the Office of Production Management, the A. A. R. on May 1 of this year recommended that the carriers increase the number of freight cars owned by 270,000 cars before October 1, 1943, 120,000 of which were to be acquired before October, 1942, and 150,000 in the second year. Estimating retirements at 50,000 cars annually, this recommendation meant the acquisition of 170,000 new cars before October, 1942. This may be compared with new orders placed with carbuilders during the past two months at the rate of 8,346 cars annually and current deliveries at the rate of 79,440 cars annually.

Chief cause of the limited freight car output, of course, has been the continued inability of the industry to fill its steel requirements and the failure of the government so far to alleviate the situation. Moreover, with no definite action being taken to make additional steel available for freight car construction, even though October output reached the level planned for May, it is impossible to anticipate that production will continue to expand as planned for the months subsequent to May.

Evidence of this is to be found in the desperate plight of individual car building plants under the steel drought which showed no improvement during October. Thus one of the largest plants in the industry with a monthly rated capacity output of 1,225 cars, delivered but 84 in October, while another plant, with rated output of 500 cars, delivered but 32. A third plant with rated output of 800 cars delivered 240.

Unfortunately, these are losses in productive capacity not to be regained since, when and if more steel is allocated for freight car construction, additional months will be needed by the car builders to plan production, secure and train manpower, etc., during which capacity production of cars urgently needed for all the nation's industries should have been taking place.

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Two Married Women in their thirties were recently given the privilege of riding on a railroad train for the first time in their lives, and declared it was a ride superior to any other. The New York Sun comments editorially that railroads came too soon; if they had been invented after the automobile what an improvement they would have seemed.

# A. A. R. Proposal Limits Number of Car Designs During Emergency

## Asks members to approve restricting orders to 13 box, open-top, and flat-car designs recommended by Car Construction Committee

IN the belief that the successful completion of the railroad program to own 1,800,000 freight cars by October, 1942, is contingent upon affirmative action by the O. P. M. to obtain the required material, the member roads of the Association of American Railroads have been asked by J. J. Pelley, president, in a letter dated November 5, to authorize the officers of the association to state to the O. P. M. that during the emergency future orders for new box, open-top, and flat cars will conform to 13 designs. These were recommended in a report of the Car Construction Committee of the Mechanical Division. The 13 designs comprise three box cars, one auto-box car, two hopper cars, four gondola cars, and three flat cars. In his letter Mr. Pelley points out that by thus restricting the number of designs of new equipment O. P. M. expects to increase the capacity of car-building facilities and to simplify the material supply problems. "As the matter now stands," he said, "procurement of material for new freight cars is contingent on acceptance by the railroads of some program of simplified practice and a firm commitment to that effect to the O. P. M."

The four box cars are all based on the A. A. R. standard designs. They cover 40-ft. 6-in. cars with inside heights at the eaves of 10 ft. and 10 ft. 6 in.; a 50-ft. 6-in. box car with an inside height of 10 ft. 6 in. at the eaves, and a 50-ft. 6-in. automobile box car of the same inside dimensions. The 50- and 70-ton hopper cars are both A. A. R. standard designs. The gondolas, of which there are no A. A. R. standard designs, are cars which have actually been built. There are two with fixed ends, one with a tight bottom, and the other with drop doors in the floor, and two drop-end designs, one of which is a 65-ft. 6-in. mill car of 70 tons' capacity. Two of the flat cars are riveted steel structures, one of 50 tons' and the other of 70 tons' nominal capacity. The third design has a solid cast-steel underframe and a capacity of 70 tons. The cast-steel flat car has a center-plate height of 26¾ in. All the other cars have truck center plate heights of 25¾ in. All of the box cars, the hopper cars, and both drop-end gondolas employ the A. A. R. standard center-sill section. On the two fixed-end gondolas and on the two riveted-underframe flat cars the center sills are of other sections. Except for the one flat car, all of the designs call for riveted construction. For the non-standard designs provision has been made for the exchange of drawings between builders.

In recommending these designs, it is the thought of the Car Construction Committee and the General Committee of the Mechanical Division that cars built during the present emergency should be of such dimensions as will freely interchange over all main lines. Should there be need for cars of special dimensions for handling special shipments or should there be need of other types of cars for special commodities, the individual railroads originating such traffic should provide the equipment for it either by altering existing cars or by providing new cars to the required dimensions or of the required type only in such quantity as are required to handle the special traffic.

The designs proposed by the Car Construction Committee are as follows:

### Box Cars

The first of the box cars is the A. A. R. 40-ft. 6-in. car with an inside height at the eaves of 10 ft. The inside width is 9 ft. 2 in. and the clear door opening 6 ft. This car is built for both 40- and 50-ton nominal capacities. Designs are shown in A. A. R. Supplement to the Manual of the Mechanical Division (1500 Series of plates). All car builders have available designs, dies, patterns, etc., and are fully equipped to build these cars.

With the exception of a 6-in. increase in height, which involves the lengthening of side sheets, end sheets, door posts, corner posts, side posts, side doors, etc., the second box car is identical with the A. A. R. car with 10 ft. inside height, for which all car builders have designs. These designs can be readily modified to suit the 10-ft. 6-in. inside height and no additional dies or patterns are required. Cars to these dimensions have been built by the Pressed Steel Car Company, to their drawing 65885-D, for the Chicago, Rock Island & Pacific, and are being built by the American Car and Foundry Company for the Missouri Pacific.

The third box car design recommended by the committee is for a 50-ton car with an inside length of 50 ft. 6 in., an inside width of 9 ft. 2 in., an inside height at eaves of 10 ft. 6 in., and a clear door opening of 8 ft. All car builders are said to have dies and patterns for these cars which are the same as for the A. A. R. 40-ft. 6-in. car with 10 ft. inside height. The proposed general design drawing has been completed under the supervision of the Committee on Car Construction.

The proposed auto-box car design is of the same general dimensions as the 50-ft. 6-in. box car, except for a clear door opening of 15 ft. The design of the underframe for the two 50-ft. 6-in. box cars will be the same, with the exception that the auto-box car will have additional reinforcement at the 15-ft. double side doors. Dies for the main cross-bearers and cross-ties will also be different. The proposed general design drawing of this car has been completed under the supervision of the Car Construction Committee. Provision is made in one end for double end doors as an alternate. This car is suitable for the application of automobile loading devices.

### Hopper Cars

Designs for the 50- and 70-ton cars are shown in the A. A. R. Supplement to the Manual of the Mechanical

Division (600 Series of plates, built-up riveted construction) and many thousands of them have been built. The committee reports that all car builders have available designs, dies, and patterns and are fully equipped to build these cars.

### Gondola Cars

No A. A. R. gondola-car designs have been developed. The Car Construction Committee reports that this is chiefly due to differences in service requirements in the various sections of the country. The eastern roads use solid-bottom gondola cars, principally for steel-mill products and to a lesser extent for coal, sand, etc. The western roads use general service gondola cars for coal, gravel, road-building material, etc., many of which are equipped with dumping arrangements. Based on a review of designs built during recent years, the committee has selected the following types as most suitable for these requirements:

*Gondola Car—Fixed End*—This is a car, the designs, dies, and patterns for which are available at the Bethlehem Steel Company, in both wood and steel floor construction (Drawing C-27252-C and Drawing C-28263-A, respectively) having steel sides. These 50-ton cars, which have been built for the Atlantic Coast Line, have an inside length of 41 ft. 6 in., an inside width of 9 ft. 6 in., and an inside height of 4 ft. 8 in.

*Gondola Car—Fixed Ends, with Drop Bottom*—The designs, dies, and patterns or this 50-ton car are available at the General American Transportation Corporation (their drawings 5-1595 and 4-3599), and were built for the Illinois Central. They have an inside length of 41 ft., an inside width of 9 ft. 6 in., an inside height of 5 ft., and have 16 drop doors in the floor.

*Gondola Car—Drop Ends*—Designs, dies, and patterns for these cars are available at the Bethlehem Steel Company to their drawings C-27425-C. They are 70-ton cars and were built for the Lehigh Valley. They have an inside length of 52 ft. 6 in., an inside width of 9 ft. 6 in., and an inside height of 3 ft. 6 in. The floors are wood.

*Mill type Gondola—Drop Ends*—This is a car, the design, dies, and pattern for which are available at the General American Transportation Corporation to their drawing 5-1608. These cars, which were built for the Atchison, Topeka & Santa Fe, have a nominal capacity of 70 tons, an inside length of 65 ft. 6 in., an inside width of 7 ft. 9 in., and an inside height of 3 ft. 6 in. These cars have steel floors.

### Flat Cars

No designs of flat cars have been developed by the A. A. R. The designs which follow were selected by the committee after reviewing cars built during recent years.

The first is a 50-ton car, designs, dies and patterns for which are available at the Pullman-Standard Car Manufacturing Company to their drawing 509-F-63-I. These cars were built for the Union Pacific. The length over the floor is 53 ft. 6 in., the width over the floor, 10 ft. 6 in., and the height, rail to top of floor, 3 ft. 7¼ in. They have a wood floor.

The second design recommended by the committee is for a 70-ton car the designs of which are available at the Greenville Steel Car Company to their drawing 16393. They were built for the Erie and have a length of 53 ft. 6 in. over the floor, a width of 10 ft. 6 in. over the floor, and a height, top of rail to floor, of 3 ft. 5 in. The floor is of wood.

The third flat-car design recommended by the committee is a 70-ton car built on a cast-steel underframe, the patterns for which are available at the plant of the General Steel Castings Corporation, Granite City, Ill. The cars were built to Pennsylvania Railroad drawing A402605C. The length over strikers is 50 ft., the width over the floor 9 ft. 3 in., and the height rail to top of floor, 3 ft. 5⅛ in. The cars have a wood floor.

The report of the Car Construction Committee, to which general arrangement drawings are attached, concludes as follows: "The foregoing recommendations have been submitted to the car builders who advise that the designs recommended do not present any difficulties in the matter of dies which they may be called upon to make in the event of the purchase of any of these cars. This has particular reference to the gondola car and flat cars as the car builders are now in possession of all dies for the box and hopper cars recommended and can without much difficulty prepare dies for the auto-box cars recommended. The car builders mentioned as having available designs, patterns, etc., for gondola and flat cars have all expressed their willingness to supply to other car builders the necessary drawings so that they may construct cars to these same designs."

# The Railroads Have a Future

CO-OPERATION of shippers will enable the railroads to survive the problems of tomorrow, Ernest E. Norris, president of the Southern, told members of the National Industrial Traffic League at their annual luncheon in Chicago on November 13. The luncheon was held in conjunction with the annual meeting of the League on November 13 and 14 at which it took action on major transportation matters. Mr. Norris said in part:

If you see a glass half *full*—you're an optimist. If you see, instead, a glass half *empty*—you're a pessimist. But if you instinctively turn from the partly filled glass to look for the pitcher, or the spigot, or the bottle, or what-have-you, you're a realist. You're one of those chaps who will try to conserve what you already have in your glass while you plan to fill it once more to the brim.

It requires little more than a glance to value the contents of the railroad's glass today. We see a potent mixture of contradictions; a concoction of brilliant highlights and black shadows.

We see a physical plant that excels, in capacity and efficiency, anything mankind has ever known before. More than eleven billions of dollars have been poured into its improvement during the past two decades. Almost a billion of that amount has been spent to increase capacity and efficiency since the beginning of senseless slaughter in Europe. And so, today, this nation can proudly boast that it has the *best* railroads in the world.

We see modernized operating practices that have kept pace with the improvement of the physical plant. They insure the most effective *use* of the best railway plant in the world.

We see the railroads organized to cope with any emergency. We encounter new machinery functioning smoothly in the handling of car service matters, port traffic, military movements, peak loads of commercial business and a thousand other problems confronting the industry.

We see friendly and whole-hearted co-operation between the railroads and the shippers; co-operation that,

for the first time, adequately expresses the interdependence of industry, agriculture and the rail carriers. Here we find recognition of the fact that the American way of mass production and mass consumption *must* be linked by mass transportation—that only the railroads can provide.

We see a brilliant record of achievement that has no parallel in all the history of mechanized transportation. We see America calling for, and getting in full measure, the very best in railway service—a product of the best plant, the best practices, the best organization, and the utmost co-operation between the railroads and their users.

Here let me remind you of a point that is too often overlooked in these critical days. No shipper in this country, including the biggest shipper of all—Uncle Sam, has yet been told that he can't have all the railway service he needs, when and where he needs it. The railroads have *kept* their pledge "to meet *to the full* the demands of commerce *and* the needs of national defense."

At the bottom of the railroads' glass we see governmentally-fixed wages and taxes cutting deeper and deeper into each shrinking dollar of revenue.

We see capital cautiously approaching the railway field to provide more jobs and still better railroads—attracted by the industry's great accomplishments. But too often it turns away, frightened by the incongruity of success in service and failure on the balance sheet.

We see a competitive situation that is still grossly unfair to the railroads.

And we see a kaleidoscope of maneuvers that may breed more restrictive laws, or further increases in railroad taxes and other expenses, or even limit the ability of the railroads to make their full contribution to the national defense.

### Views Railroads' Tomorrow

One of the most intriguing words in the English language is—tomorrow. It carries with it all we know of hope and fear. It thrills us sometimes. More often than we like, it fills us with dread. But this is a realist's pilgrimage and we have agreed to a foray into the no-man's land of the future. So let's see what tomorrow promises for our railroads.

These, it seems to me, are basic certainties that will highlight the days to come. First of all, the railroads will continue to railroad. Our life as a nation; our whole economic and social existence is geared to railroad service—because man has yet to devise any other method of land transportation that can do what the railroads do.

Second, this insane world war will end. It can't go on forever. And when it does end, we can expect a painful period of readjustment while our nation shifts from a war to a peace-time economy. During this period of change we shall probably see new lows in the volume of traffic to be moved from one place to another in this country.

And third, the railroads will have to face new and desperate competition for whatever traffic there will be. We shall encounter an enlarged and aggressive highway transport system. We shall have to meet the competition of inland waterway lines, revived by the gift of man-made channels in many a creek. We will find the bombers of war converted into air freight carriers and their new owners energetically bidding for a share of the country's hauling job.

These seem to me to be three of the certainties of tomorrow—as distinguished from the limitless range of possibilities so often viewed with alarm, or delight, by our modern prophets—while they busily grind their axes.

As I said in the beginning, my sole objective in this effort is to voice some home-grown thoughts that may help us all through the crowded days that lie ahead. In line with the objective, I think we might array what we know about our railroads today against the little we can foresee of tomorrow.

We know that the railroads will swing into the future with the most efficient plant they have ever had; with the best trained personnel in railway history; with the most effective techniques ever devised for the transport service of a nation; with perfected machinery for co-operation between those who operate and those who use the railroads; and, with a record of achievement that has gained the confidence and respect of a grateful nation.

We can reasonably expect that the railroads will enter the misty realm of tomorrow carrying the heaviest tax load in the history of the industry, paying the highest wage rates they have ever paid, collecting the lowest average revenue per ton-mile within the memory of moderns, and committed to standards of service and maintenance that drastically limit the flexibility of expenses.

We can foresee the thin trickle of traffic that will flow from post-war readjustment. We can divine the savage competition that the railroads will face for every ton of that traffic. And, without stretching our imagination very far, we can visualize the devastating effects of these two certainties. We can see revenues declining; expenses frozen; profit a dimming memory; capital stoutly—and rightly—refusing to invest in an industry faced, with government-nursed competition.

Of course, it doesn't make sense, that achievement and applause should be accompanied by starvation and abuse. It doesn't make sense today. And it will make less sense tomorrow. But *still* I hang on doggedly to the role of a realist. Still I believe in the future of this industry of ours. And if you ask me why, I'll answer that YOU give me the faith and the courage to hope; you and every other true American capable of thinking beyond the end of his nose. You inspire me to say:

The railroads are going to lick the problems of tomorrow; the problems of depression; of competition; of dwindling revenues and inflexible expenses; of inequalities in the treatment of different forms of transportation. They are going to win out partly because they have what it takes to do the job; the inherent strength, the resourcefulness, the courage, the will, the talent, if you please. But it will be the co-operation of the nation's shippers and the support of the American people that will really make this prediction come true.

### Much Depends on Shippers' Co-operation

But I warn, you *must* do more than clap your hands and pattern artful phrases. You—as patrons of these railroads; as experts on their problems—must become leaders in the campaign to give the railroads a square deal. You must explain. You must *act*. And you must inspire others to act. You must banish forever from your mind—and from the minds of the American people—that "doing something to help the railroads" is an act of charity. You must realize, instead, that everything you do to correct the stupid contradictions we have seen, stems purely from self-interest—and nothing else! For this is *your* business just as surely as it's our business. And *if you'll do your part*, I'm confident that the railroads—and our present system of private operation of railroads—will survive the problems of tomorrow—and of many tomorrows to come. At least that is the conclusion of one realist.

# Railroads Must Have Materials

## Transportation requirements to be greater in 1942 Shipper co-operation brings better rail performance than in 1929

MATERIAL for cars and locomotives must be delivered if defense demands for transportation are to be met; transportation requirements in 1942 will surpass those of 1941 and shipper co-operation has brought about rail performances that exceed those of 1918, it was emphasized at the annual meeting of the National Association of Shippers Advisory Boards in Chicago on November 10 and 11. Present officers were reelected for the ensuing year.

## Materials For Railroads Are As Important As Munitions

So important are materials for cars, locomotives and maintenance to the successful functioning of rail transportation that the members of the National Shippers Advisory Board passed a resolution calling upon the proper authorities of the Federal Government to take all necessary steps to insure that the railroads of the United States can obtain delivery on their orders for materials for the repair and maintenance of plant and equipment and for the construction of such additional equipment as is necessary to meet the transportation demand of defense and commerce.

"No element in the defense program is more essential than rail transportation," the resolution continued. "No element in the defense program has come nearer doing its job 100 per cent than the railroads. In the more than two years since war broke out in Europe, and in the year and more since American re-armament began, the railroads have met all demands upon them. It is essential that they continue to do so. They can so continue, provided they can procure the materials necessary to keep their plant and equipment in repair and to enlarge their carrying capacity as needs increase. There is no defense need more vital than this.

The importance of materials was first brought before the meeting by President Alvin W. Vogtle, manager of traffic and sales of the De Bardeleben Coal Corporation, who, in his opening remarks declared that "without railroads there can be in this country no sufficient transportation, and without that there can be no great national production." For this reason, he maintained, "there can be no use for materials more vital than the maintenance of the essential transportation upon which everything depends." He urged shippers to exert their influence to the end that railroads and car and locomotive builders will be able to obtain "the comparatively modest amounts of steel and other materials which they need."

### Shortage of Materials a Menace, Says Eastman

The shortage of materials was termed a menace by Joseph B. Eastman, chairman of the Interstate Commerce Commission, in an address at the Association's luncheon. "The railroads," he said, "have been very modest in their estimates of the number of cars and locomotives they will need for the future. Already output is being restricted and they are getting about one half less than what they ought to be getting per month. They are also approaching some danger point with respect to the materials for the repair of the equipment that they have. There are impending equipment shortages. I cannot think of anything more important than keeping railroad equipment and facilities in prime condition so that they function efficiently. Transportation is a part of the defense mechanism of the country; nothing is more important."

### Bad Order Equipment Lowest in History

The present freight equipment situation was summarized by C. H. Buford, vice-president, Operations and Maintenance Department of the Association of American Railroads, as follows:

"On October 1, 1941, the railroads reported an ownership of 1,675,630 freight cars. Of this number, 1,602,611 cars were in serviceable condition, leaving 73,019 cars, or 4.4 per cent of the ownership, classed as bad order. This was the lowest percentage of car ownership in need of repairs in the history of the railroads. On the same date, the railroads reported an ownership of 41,413 locomotives, of which number 37,333 were in serviceable condition, and 4,080, or 9.9 per cent of the ownership, were classed as bad order. This, also, was the lowest percentage of locomotive ownership in need of repairs on record.

### Number of Serviceable Cars Increased

"From October 1, 1939, to October 1, 1941, which is about the time the war and our defense effort have been in progress, the railroads increased their ownership of freight cars by 31,732. They also reduced the number of cars awaiting repairs by 121,871, which gave them an increase of 153,603 serviceable cars. During this same two-year period, there was a reduction of 1,365 locomotives owned, and a reduction of 4,097 locomotives in need of repairs, leaving the railroads with an increase of 2,732 serviceable locomotives.

"In the same period, the railroads put in service 131,078 freight cars and 962 locomotives. The difference between these figures and the ones I have just quoted as increases in serviceable units are accounted for by the cars and locomotives that have been retired.

"It is interesting to compare the ownership on October 1 of this year with the same date in 1929. In that length of time, there was a decrease in ownership of 590,732 freight cars and 15,943 locomotives. Notwithstanding this large reduction in the amount of rolling stock, many railroads for some time have been handling more ton-miles of freight than they handled in the corresponding months of 1929, and, in some instances,

there have been increases of from 40 to 50 per cent in volume."

## Future Requirements Uncertain

Future transportation requirements are uncertain and depend upon civilian and government demands, according to various speakers. Carloadings for 1941, Mr. Buford stated, will total between 41 and 42 million cars. Those for 1942, based upon forecasts of the Advisory Boards for the first quarter of 1942, will reach 44 million cars.

"In my opinion," he said, "time is not far distant when everyone will realize just what this country is facing in the way of an emergency, and working people will make up their minds to work. When this is done, more commodities and materials will be produced, and more transportation will then be needed. Under such conditions, it is possible that the total loadings next year will mount to 45 or 46 million cars, with a peak weekly loading of about a million cars.

"As you doubtless know, the railroads have a program for the purchase of new equipment that will give them an ownership of 1,800,000 cars by October 1, 1942. Along with this is a locomotive construction program, and at the present time it looks as though the total locomotives to be built between this date and next October 1 will be approximately 900. Of this number, about 700 are now on order.

"We believe that if the railroads obtain this new equipment, they will be able to handle all traffic now in prospect—provided, of course, that they continue to receive shipper co-operation. And by co-operation I mean doing more of the sort of thing you have done within the past year. This is important because it is going to be necessary for all of us to do a better job than we have ever done before, even though the railroads get all of the equipment they order."

### Anything Can Happen

Mr. Eastman in commenting upon future traffic said, "The only thing I am sure of is that no one can be certain and that all sorts of things may happen. If our industries all get going on a 24-hr. basis or even if they increase very radically the amount of hours work per week, that might add to the load of the railroads in a manner few of us expect. Another possibility is a bridge of boats between this country and the other side. If that bridge of boats increases greatly in capacity, the amount of traffic handled by the railroads to the ports of the Eastern seaboard may also increase greatly beyond present expectations."

### Increased Production for Defense Will Be Neutralized by Other Factors

Increases in military traffic will in large part, if not entirely, be offset by corresponding decreases in civilian traffic, according to C. J. Goodyear, general chairman of the Atlantic States Shippers Advisory Board and traffic manager of the Philadelphia & Reading Coal & Iron Co. "Such things," he said, "as automobiles, radios, refrigerators, and other civilian consumer goods, as well as the materials for their manufacture, will move in very greatly reduced volume. Whether these decreases will completely offset the increased traffic in defense materials remains to be seen. The picture of the needs under our military and naval programs, and under the lease-lend activity, change so rapidly that it is hardly safe to venture a prediction.

"Furthermore, industry, with some exceptions, is working under the 40-hr. work week. The increase in our national production has been attained under that condition. What would happen if the emergency should become so acute as to force the Federal Government to abandon the 40-hr. law for the period of the emergency? Would an increase in working time to 48-hr. per week bring about a corresponding increase in the amount of goods produced? Undoubtedly it would not, because by reason of split shifts and the payment of premiums for overtime, many industries are already in almost continuous operation and production. This is, however, one of the possibilities that lie before us if we are projected farther into active participation in this war.

"To sum the matter up, the unloadings for the four weeks ending October 25 were 3,657,882 cars, as compared with 3,269,476 for the corresponding period of 1940, an increase of 388,493, or 11.9 per cent. The weekly average was 914,470, compared with 817,389 last year. Our national forecast indicates carloadings for the last quarter at 11.8 per cent over last year.

"We have a considerable volume of traffic to come, eventually, from the new plants which are now authorized or under construction, and we have immediately before us a heavy decrease in non-defense civilian traffic. Balancing the two, it seems unlikely that our carloadings will rise beyond 950,000 cars per week until well along into 1942."

## To Keep Them Flying—Keep Them Rolling

Determination to keep cars rolling in support of the governments defense program was expressed by shippers and railroads. "The addition of 100,000 cars to the national pool," Mr. Goodyear said, "should insure adequate transportation service for more than a million cars per week—a volume which does not at the moment appear in sight, although it might be attained late in 1942. If, however, this situation is to be met satisfactorily, the need for continued and concentrated co-operation between shippers, receivers and carriers will be just as great—perhaps greater—than during these past months when so very much was accomplished in this manner. We of the advisory boards must continue to hammer home the doctrine of freight car efficiency. No stone must be left unturned in our efforts to load the cars heavy and keep them rolling. Given the right kind of co-operation, the job will be done."

M. J. Gormley, executive assistant of the Association of American Railroads, said, in a paper read at the meeting, "We have ample evidence of the great work that has been carried on by shippers and by the railroads. It has been done without any restrictive and arbitrary regulations, so far as demurrage, carload minimums, etc., are concerned. I have often said and here repeat that I have more confidence in what can be accomplished through co-operative effort than in the possibility of accomplishment through the medium of compulsory regulation. Let us take the position that the co-operative effort is now well organized and that we are determined to make it fully effective for the year 1942. This applies in the same measure to improve operations on the part of the railroads, as well as the effort to eliminate

waste in equipment on the part of the shippers and receivers, so that by the end of 1942, if the railroads are not prevented from getting materials for the repair of old and the construction of new equipment, a new record will be established for efficiency in transportation through this co-operative effort heretofore never dreamed of."

J. J. Pelley, president of the Association of American Railroads said: "We may have to handle our business next year with less equipment than we would like to have. We have responded in every emergency thus far. We may have to increase our efficiency and improve the handling of equipment still more. I think that with the equipment we can get for next year, by increasing the movement of cars and by speeding up loading and unloading we can give a good account of ourselves next year."

Mr. Buford said: "We must find a way to get even larger loads in cars, and we must load and unload cars more promptly. When I suggest that we find ways to do this, I mean that we must get more people to do the kind of job that some have been doing—and this means railroads as well as shippers. Railroads, generally speaking, are improving their methods of handling cars. They realize that much more can and must be done, and they are determined to do it. Some shippers have not done all they can do, and I ask the various shippers advisory boards and other groups to continue their efforts."

### Production Instead of Transportation Should Be Curtailed

Mr. Eastman, in his luncheon address, opposed the assumption that present transportation facilities are adequate for the movement of munitions and that the Interstate Commerce Commission, through its powers of embargo and priority orders, can insure the movement of these and defer the transportation of non-essential needs. "I have a very strong feeling," he continued, "that the railroads are right in believing that if there is to be any restriction of commerce and industry, the place to put that restriction is on the production of commodities and not upon the movement after they are produced because it is going to be a tremendously difficult thing for the Commission to determine the things that ought not to be moved. If commerce is restricted, shippers will become panicky and order more cars than they need. In the movement of cars there will be congestion. I hope nothing of that sort comes about and that the railroads and the other transportation agencies are allocated the materials which are necessary to keep the present facilities in good condition and to meet the very modest demands which they are making for new equipment for the future."

### Oppose Centralized Super-Board

The present method of handling transportation agencies was endorsed by the association in a resolution which read as follows: "The shippers of the United States do not favor proposals for a centralized super-board or super-administration of transportation. We believe, and experience has shown, that transportation is better performed when it is left in the hands of the three parties most interested and best informed—the producer with something to ship, the carrier to whom it is entrusted, and the receiver who wants to get his goods. That is the way rail transportation has been carried on during the present emergency, and its record of performance will not suffer by comparison with the performance of any other part of our defense effort. The present setup, which has produced such eminently satisfactory results, should not be disturbed by the injection of any new form of super-control other than the present regulation in the public interest."

## Shippers Set Record in Car Utilization

Outstanding results on the part of shippers to bring about a more efficient use of freight equipment were reported. W. B. Shepherd, assistant general traffic manager of the Aluminum Company of America, in a report on the activities of the Car Efficiency Committee of the Allegheny board, said that as a result of its activities tangible results have been realized. "A large shipper of lime at Bellefonte, Pa.," he continued, "had his sales department address a letter to all the company's sales offices urging co-operation in heavier loading. To date, 22 customers have authorized the shipping of heavier cars. This single effort will save at least 203 cars per year. Another board member, a traffic manager for a large glass bottle manufacturer at Oil City, Pa., has, by a carefully-worked-out program, increased his loading from 16 to 19 tons per car. This company's car requirements have been decreased approximately 12 per cent or 86 cars per month with no reduction in the tonnage shipped. On a movement of steel bars from Farrell, Pa. to Canton, Ohio, the average load was increased from 76,000 lb. to 86,000 lb., saving about 50 cars per month. By increasing the average loading of billets from Economy, Pa. to Aliquippa, 18 cars per month are being saved. A warehouse in Pittsburgh, by increasing the loading of sugar from 60,000 lb. to 80,000 lb. saves 75 cars per year. A nut and bolt manufacturer, by heavier loading of scrap, is saving 7 cars per month. A large pipe manufacturer at Ambridge, Pa., has doubled the load on certain inbound cars. Silica sand from Howard, Ohio to Sharon, Pa. shows an increase in average load from 82,000 lb. to 100,000 lb., saving 50 cars per year. Cement from East Fultonham, Ohio to Clarksburg, W. Va. formerly loaded 57,000 lb. per car and is now loading 95,000 lb. saving 60 cars per year.

"Our local committee at Ambridge, Pa. set up an arrangement whereby cars shipped from the district can be switched and classified into trains before the billing is received, eliminating the movement from and to hold tracks while awaiting the billing. The same local committee arranged for the billing of all cars shipped each day, thus eliminating the holding over of any cars as 'no bill'."

The Association's Committee on the Complete Unloading of Cars reported that some industries, in an effort to bolster the car supply, are placing placards in their cars while others are placing notices on invoices urging receivers that empty cars be returned to the carriers in such condition that they may immediately be used for reloading. These placards and notices stress the importance of removing blocks, staking and debris from the cars, thereby precluding the possibility of placing cars on the cleanout tracks of the railroads, which invariably means a delay of from 24 to 48 hr.

Many cars containing less-than-carload shipments weighing from 5,000 lb. to 10,000 lb. were being handled in switching service and invariably delayed from two or three days before they were returned to the line-haul carriers. Industries have requested the railroad to unload these shipments and make delivery through available dray service. It develops that many car days are saved since the line-haul carrier thereby has this equipment available for reloading the same day that is is unloaded.

The volume of traffic moving through North Atlantic ports closely approximates and in some weeks exceeds that handled at the peak of the World War movement, according to George C. Randall, manager of Port Traffic of the Association of American Railroads. "At New York, for illustration," he said, "the average unloading of export and coastal freight has increased from an average of less than 500 cars per day in the early months of 1939 to more than 1,200 cars per day at the present time. We have approximately six days' supply of freight on wheels and an additional five days' supply in pier and ground storage which provides a reasonable 'bank' of freight so that there may be no delay to ships awaiting cargo. From the best records available, an average of 1,350 carloads of freight were delivered to boats at New York each working day during the month of October, 1918. During the month of September, 1941, this average was 1,146 and during the month of October, approximately 1,200.

"We are currently unloading between 2,500 and 3,000 cars daily at all United States ports. The average number of cars on hand at all ports varies ordinarily between 12,000 and 15,000. It is thus seen that the average 'bank' of freight is something less than five days.

"It is not too much to say that if the railroads had not received the very satisfactory co-operation which they have had from shippers, receivers, brokers, forwarders and the steamship people, it would have been impossible for them to have furnished the satisfactory transportation, particularly during the peak months of the year, which has been furnished. An average increase in the detention of cars by shippers and consignees for loading and unloading of one day would have increased the car ownership requirements of the railroads by over 100,000 cars."

The Association passed a resolution urging Congress to repeal in its entirety that provision of the law requiring reductions in railroad rates on account of land grants, because the present law discriminates between shippers located on land grant railroads and those on other railroads in bidding on government business; no one knows just what the land grant deductions amount to in any particular case until after the shipments have been made, and it is a source of discrimination between government and commercial shipments which should be removed.

Because no strike could be more disastrous than that threatened by railroad workers, the association telegraphed the President urging him to stand firm for the Emergency Board. The telegram read in part:

"Railroads and organizations of railroad employees submitted their differences as to wages and conditions of employment to the democratic process established by the laws of the United States for determining such differences. Through various steps of negotiation and mediation this process culminated in a full and fair hearing before a board appointed by you to ascertain the facts and make findings. That Board has acted. The railroads have accepted its findings. Certain representatives of the employees have announced their intention to precipitate a strike against those findings.

"If the democratic way of settling such questions is to be preserved, the employee organizations should in good faith accept the findings and recommendations reported to you without change or compromise, as the railroads have done.

"The National Association of Shippers Advisory Boards has a vital interest in the subject. We are concerned at all times that traffic shall be moved dependably and without interruption. We are more than ever concerned at this time when the national effort is devoted to putting this nation in a state of preparedness.

"The railroads of the United States have met transportation demands to the full. We want them to be able to continue to do so and we know that they can under the private management which has done so superb a job in the present emergency. We want no change in that method of management and operation.

"We speak the wishes of the shippers, therefore, when we urge that you stand firm for the acceptance by both sides of the considered conclusions of your Fact-Finding Board. If that is not done in such a situation as this there can be no hope for reasonable public determination of disagreements between labor and industry in any other situation which may arise."

# Locomotives Without Classification Signals

MOVEMENTS of trains on the Pennsylvania are under more constant supervision and are more limited in their operations from point to point than is generally the case on the majority of the railroads in the United States, and the company has recently taken advantage of the opportunity thus afforded to eliminate classification signals from its locomotives.

Telephones are located at all switches where trains enter or leave the main track and at junction points, signal locations, block stations and interlocking stations, for use of train crews to obtain instructions, block information and train orders. A block system is used over all parts of the railroad where passenger trains are operated and on most of the freight lines, except lines of very light traffic. Trains are not permitted to enter the main track at any point without permission, and when clearing main track at any location the train must be reported clear.

With dependable communication, assuring constant contact with trains as they progress from point to point under modern signaling systems, train movements are more expeditiously handled than by time-table schedules which were so necessary before adequate communication and signaling systems were available.

Only two kinds of trains are operated on the Pennsylvania, namely, regular trains (first-class) and extra trains; also when more than one unit of a regular train is run, one unit constitutes the scheduled train; the others are designated as "passenger extras." The term "section" has been eliminated from the Book of Rules, and with the disappearance of sections, the display of green flags and green lights on locomotives to indicate a following section becomes unnecessary, and their use has been discontinued.

With only two kinds of trains being operated, and no sections of trains being involved, the identification of trains is simple. Locomotive numbers are employed for identification purposes, the rules requiring first-class trains to be designated by both schedule and locomotive number, and trains to be informed by train order as to the number of the locomotive on opposing regular trains. Under these conditions, the display of white flags and white lights on locomotives of extra trains is unnecessary, and their use has been discontinued.

On October 1, 1941, the Pennsylvania had 4,244 locomotives in its ownership, of which 3,779 locomotives were not equipped with classification signals. Classification signals will be removed from the remainder (465) as the locomotives are given class repairs.

# A.A.R. Electrical Sections in Three-Day Sessions

## Discussions of reports interspersed with talks on signals, lighting and the Chicago subways

THE two Electrical Sections of the Association of American Railroads held their annual meetings at the Hotel Sherman, Chicago, October 28, 29 and 30. The Sections are affiliated, respectively, with the Engineering and Mechanical Divisions. There is an overlap of membership, but no duplication of effort. Reports of mutual interest are prepared by joint committees and presented to both bodies.

## Electrical Section, Engineering Division

The Electrical Section of the Engineering Division held its meeting on Tuesday, October 28. It was opened by Chairman H. F. Brown, assistant electrical engineer, New York, New Haven & Hartford, who introduced H. R. Thomas, signal engineer, Atchison, Topeka & Santa Fe, chairman, Signal Section, A. A. R. Mr. Thomas read a paper on railway signaling, outlining its principles of operation. Chairman Brown followed Mr. Thomas' talk with his annual address, which he referred to as a "valedictory," since he is retiring after five years' service. The report of the Committee of Direction was presented by W. S. Lacher, secretary, Electrical Section, Engineering Division.

### Power Supply

A major part of the report of the Committee on Power Supply is concerned with the design of facilities for yard and terminal battery charging. A questionnaire sent out to members, which concerns the location of charging outlets, finds that the majority prefer that one air-conditioning receptacle should be provided for each car in a coach yard. General approval is also given to the use of constant potential or modified constant potential charging circuits for both coach yard and train shed. The use of portable battery charging sets is recommended for smaller yards.

Discussion of the report raised the question as to what constituted a small yard. It was generally agreed that a 40-car yard was a small one and that, in many instances, the use of portable charging sets was justified in much larger ones.

### Overhead Transmission Line and Catenary Construction

Joint specifications for electric light, power supply and trolley lines crossing railways have been prepared by the Electrical Section with representatives of the Edison Electric Institute. Agreement on all points has been reached and the code has now been made available by the Bureau of Standards in Handbook 32—"Safety Rules for Installation and Maintenance of Electric Supply and Communication Lines."

The report also refers to work being done by the Mechanical Section on lubrication of overhead contact wires for electrified lines. Possible bridging of wood-stick sectionalizing insulators by graphite lubrication was questioned, and it was pointed out that the effect of the graphite is less than that of weather, and that possible difficulty may be avoided by inspection at three-month intervals.

### Standardization of Apparatus and Materials

The committee on Standardization of Apparatus and Material has compiled specifications for friction and rubber insulating tape, and in this report it lists new A. S. A. electrical standards of interest to the section.

The report recommends the use of wooden cable drums, having wooden discs for use in third-rail territory. It was suggested in the discussion that adequate insulation also would be supplied by metal drums with wooden flanges.

### Electric Heating and Welding

Stored energy for electric welding is a major item in the welding report. This method of welding is of particular value for resistance welding of metals of high thermal conductivity. The energy may be stored either in a transformer or condenser, and released at the moment the weld is made. The chief virtue of the process is that it avoids high-current demands on the power-supply system. Another section of the report describes means for avoiding welding hazards. This has to do with shields, helmets, goggles, protective glasses and clothing, and the necessary care required for working on containers used for flammable liquids.

### Chicago Subway

Two papers on the Chicago Subway were read to the Section by E. A. Imhoff, electrical engineer, Chicago Rapid Transit Company, and W. P. Monroe, Department of Subways and Super-Highways-System of Chicago. It was explained that the subway will consist of two separate routes which have no physical connection. Route No. 1 will be a four-mile line, known as the State Street route. Route No. 2 is known as the West Side or Randolph Street route. The subways will connect with the elevated lines, elevated trains will operate in the subway, and the power supply from an over-running third rail will be 600-volts d.c. Stations will be fluorescent lighted, while train tubes will employ incandescent lighting. Operation of pumps and blowers will be controlled remotely by a supervisory system.

Lubrication, inspection, maintenance, repair shop practice, motor characteristics, control equipment and design of circuits are covered comprehensively in the report on

Application of Motors. It was prepared in 1940 and has now been revised for inclusion in the Manual.

### Clearances for Third-Rail and Overhead Working Conductors

For several years the committee has been working with other interested bodies on the preparation of a diagram of clearance lines for pantograph, catenary construction and adjacent permanent way structures. Agreement has been reached by members of all committees concerned and it is anticipated that the diagram will be approved shortly.

### Track and Third-Rail Bonds

The report includes a tentative draft of a specification for welded bonds.

Discussion was limited to recommendations for future work.

### Illumination

There has been no notable achievement in the development of incandescent lamps during the past year, and the report is concerned chiefly with fluorescent lamps. It also deals with lighting in smoky atmospheres. Concerning the use of fluorescent lighting in drafting rooms, the report states that best results are secured by the use of continuous lines of fixtures, run at a 45-deg. angle with the center line of the drafting board, the direction of the line being from the right rear of the draftsman toward his left front.

### Railway Lighting

A short paper on railway lighting was presented to the Association by H. H. Helmbright, General Electric Company. He told of the development of fluorescent lamps, stating that the first lamp was placed on the market in 1938, and in that year 250,000 were produced. A projection of the present trend indicates an output of 20,000,000 for 1941. He showed slides of industrial applications which included fluorescent-lighted shops having from 30 to 70 foot-candles on the working plane.

### Design of Indoor and Outdoor Substations

There was no printed report presented by the Committee on Substations, but announcement was made of a new development which allows for supplanting the vacuum of a mercury-arc rectifier with nitrogen, thus permitting the removal of anodes or other internal parts without the necessity of a subsequent bake-out.

A fire protection system, known as Mulsifyre, was described. With this system, high-pressure causes water to be projected from deluge valves at velocities sufficient to emulsify burning oil. The valves are supervised by thermocouples.

Where water is a problem, storage tanks and gas pressure are employed.

### High-Tension Cables

The report of the Committee on High-Tension Cables consists essentially of descriptions of Oilostatic and gas-pressure cables for carrying high-voltage power. The cables are contained in pipes with oil or an inert gas under high pressure. The object in case of both types is to keep the impregnated insulation of the cable under high pressure. The gas-pressure cable is unlike the low-pressure system, in which the gas is inside the lead sheath.

### Corrosion-Resisting Materials

For several years the Committee on Application of Corrosion-Resisting Materials to Railroad Electrical Construction has made reports on various types of material placed in roundhouse jacks, in tunnels and exposed to salt air. Its findings constitute an important contribution to railroad research. A few remaining samples installed in 1934 will be removed in 1942, and a final report then made.

Discussion of the report indicated concern about the R. E. A. lines which now criss-cross the roads with communication lines underneath. It is anticipated that the railroads will have difficulty in imposing their crossing requirements, and it is recommended that samples of the composite materials such as those used for the R. E. A. lines be made under working tension for corrosion tests.

### Election of Officers

Officers elected were as follows: Chairman, D. B. Thompson, mechanical and electrical engineer, New York Central; vice-chairman, J. M. Trissal, electrical engineer fixed property, Illinois Central; Committee of Direction, H. F. Brown, assistant electrical engineer, New York, New Haven & Hartford, and R. J. Needham, mechanical and electrical engineer, Canadian National; Nominating Committee, H. C. Griffith, electrical engineer, Pennsylvania; H. P. Wright, assistant engineer, Baltimore & Ohio; P. B. Burley, assistant engineer, Illinois Central; C. P. Kahler, electrical engineer, Union Pacific, and C. A. Williamson, electrical engineer, Texas & New Orleans.

The present officers will remain in service until January 1, 1942, at which time the new slate will take office.

## Electrical Section, Mechanical Division

The Electrical Section, Mechanical Division, A. A. R., held its meetings on Wednesday and Thursday, October 29 and 30. The meeting was opened by Chairman C. E. Wood, engineer of train lighting, Chicago, Milwaukee, St. Paul & Pacific. In a brief address he told of the origin of the Association, reasons for its creation and outlined its present functions. The report of the secretary was presented by J. A. Andreucetti, electrical engineer, Chicago & North Western.

### Car Electrical Equipment

The report on Car Electrical Equipment is concerned chiefly with battery boxes, battery terminals, Monobloc battery trays, and silver-plating of fuse clips.

The use of larger batteries for air conditioning has resulted in increased temperatures in battery boxes. These higher temperatures require more frequent flushing and may result in reduced battery life. Means for improving box ventilation were discussed. This is usually obtained by putting more holes in the box. Forced ventilation has been tried, but this requires expensive duct installations. Ventilation induced by venturi tubes is being considered. It was also suggested that air from the car be exhausted through the battery box. Most of the heat is developed above the batteries, and large con-

nectors, sometimes equipped with fins, have proved effective in disposing of it.

Discussion developed the fact that battery box explosions usually occur in the yard and not on the road. These, it was said, may be reduced by improved yard practices, including the opening of the box during charging periods. It was stated also that the need of increased ventilation was essentially a problem of yard charging. Accurate control of charging voltage was offered as an important measure to avoid unnecessary heating.

### Car Air Conditioning Equipment

The report describes two electronic filters which have been installed in observation cars of Union Pacific-North Western trains. Initial tests have proved the units satisfactory. The major part of the report covers recommendations for testing propane fuel containers.

The report expresses a need for improving car heating control and the desirability of heating with radiator temperatures below 145 deg. F. This is the temperature of air pasteurization; above this value the quality of the air is destroyed.

Two additions to air conditioning equipment are described in the report. These are the "completely automatic" Edison passenger-car control system, which provides for varying heat requirements in different parts of the car, and the B. F. Sturtevant air-conditioning system, which incorporates a two-section evaporator which may be used in full or in part, and an unloading compressor, which may be operated at full or partial capacity.

In the discussion the effectiveness of Dorex carbon for removing odors from cars was described.

The E. A. Lundy system of air conditioning, which employs a three-cylinder Chrysler Airtemp unloading compressor, and split evaporator, was described also as applied to New York Central cars. It is felt that this type of system will effectively control humidity and obviate the need for continuous refrigeration and subsequent reheating of the air.

Shortage of Freon was discussed and the possible use of methyl-chloride considered. This substitution would reduce the capacity of a system about one-third, and some manufacturers insist that nothing but Freon can be used in their apparatus.

### Illumination of Rolling Stock

The report deals with incandescent and fluorescent lamp developments, the introduction of a d.c. booster for raising 30-volts to 60-volts for the operation of fluorescent lamps, plastics in car lighting, photometers for fluorescent lamps and night lights for coaches. The discussion developed the fact that compensating filters for photoelectric photometers are no longer available, but that multiplying factors for existing filters can be obtained, which will adapt them to each type of fluorescent light.

It was stated also that an addition of 10 per cent to the reading in a car is needed to allow for light coming to the meter at high angles to the vertical.

The use of fluorescent carpets, which are made to glow by small argon lights under the seats, was described. Recent experience indicates that fluorescent blue lamps are better for this purpose than the argon lamps.

Several members expressed the opinion that the blue lights used for night lighting of coaches do not give sufficient illumination. In some cases, connecting the white lights two in series has been tried. More satisfactory results have been obtained by using 25-watt blue lamps in place of the usual 6-watt.

### Automotive and Electric Rolling Stock

The report of the Committee on Automotive and Electric Rolling Stock describes a means for determining the degree of acidity in Diesel lubricating oil. It also recommends practices for the reclamation and reconditioning of Diesel-engine parts and includes specifications for Diesel-electric switching locomotives. The last two assignments in the report are winter protection of Diesel engines and cooling systems, and lubrication of pantograph shoes.

The importance of parts reclamation was emphasized in the discussion, especially as accomplished by building up worn surfaces by metal spraying and plating. When the number of engines is few, bearings of different size are not important, but when there are many engines, bringing primary wearing parts back to normal size is of great importance.

The several methods for winter protection of Diesel engines are listed as direct and indirect steam heat, fuel oil or coil-fired heaters, electric heating and the use of anti-freeze solutions. Idling engines is listed as a temporary or emergency measure. An objection offered to the use of anti-freeze solution is that it requires a lighter than normal grade of crank-case oil to facilitate cold starting.

Reports of members showed that when graphite is used to lubricate pantographs and overhead wires, the life of the pantograph shoe is increased from 2½ to 3½ times.

### Power Plants

The report on Power Plants is concerned with the electrification of railroad power plants. In some cases boilers may be dispensed with, and it is stated that when steam must be available, mechanical stokers can frequently be applied, since they now have been developed to a point where they can be used advantageously on boilers between 100 and 300 hp.

The report refers specifically to the requirements of boiler washing and filling plants when a terminal is electrified, since complete electrification means dependence on heat from blowdown steam. Methods of using blowdown steam most effectively are described.

### Electric Welding

The greater part of the report on Electric Welding consists of a comprehensive coverage of fundamentals. Special attention is given to hard-surfacing by welding or the use of inserts to prolong the life of parts.

In the discussion attention was called to the fact that in some types of welding a 60-deg. V can replace one of 90 deg. in the preparation of a weld because of improved electrodes and arc control.

### Radio and Communication Systems

The report on Application of Radio and Communication Systems to Rolling Stock deals with broadcast receivers on passenger cars and communication systems for freight trains. It states that the Union Switch & Signal carrier current system of communication for freight trains is now in use for hump yard communication on the New York Central at Sharonville, Ohio, the Louisville & Nashville, at DeCoursey, Ky., and the Penn-

sylvania, at Columbus, Ohio. One-way communication only is maintained from the hump office to the locomotive. The Committee also reports on the General Railway Signal Company's radio-type communication system at the North Western's hump yard at Proviso, Ill. This supplies two-way communication.

Discussion centered largely around the fading of radio signals on broadcast receivers and with the relative merits of different kinds of antennae insulation as protection against falling wires or low overhead contact wires. In some cases fading is avoided by the use of stringing overhead wires through tunnels and by the presence of overhead contact wires in tunnels and terminals. Improved radio receivers are responsible for a general reduction of the fading problem.

### Locomotive Electrical Equipment

Eliminating vibration from headlight cases, foam meter maintenance, clear vision windows and speed indicators and recorders are the principal subjects included in the report on Locomotive Electrical Equipment. The most recent development in vibration elimination is the use of rubber mountings in shear, rather than in compression.

The part of the report dealing with foam meter maintenance includes instructions for test and inspection of such equipment.

The use of jets of warm air for keeping steam locomotive windows clear in the winter is described. The section of the report dealing with speed indicators and recorders describes the most recent additions to this type of apparatus.

The greater part of the discussion on locomotive electrical equipment concerned the use of 12- vs. 16-contact receptacles for train signals and electric brake and sander control.

The preponderance of opinion indicated that a 12-contact receptacle is sufficient.

Various methods of using warm air for cleaning locomotive windows were described in the discussion. The use of mechanical wipers was advocated, and objections raised because the window is small and must be opened. It was shown that such wipers are used on swinging windows of Diesel switchers, and one road reported effective results in the winter by using defrosting liquid with mechanical wipers and substituting water for the defrosting liquid in the summer, for the removal of bugs. In response to a question on the value of the locomotive recorder tapes, it was reported that on the New York Central the tapes are checked to see if proper cutoff is used, to ascertain speed violations, and to determine the operation of forestalling devices. Recorders are also used in case of accident.

It was stated also that if the tapes are not analyzed they should not be used.

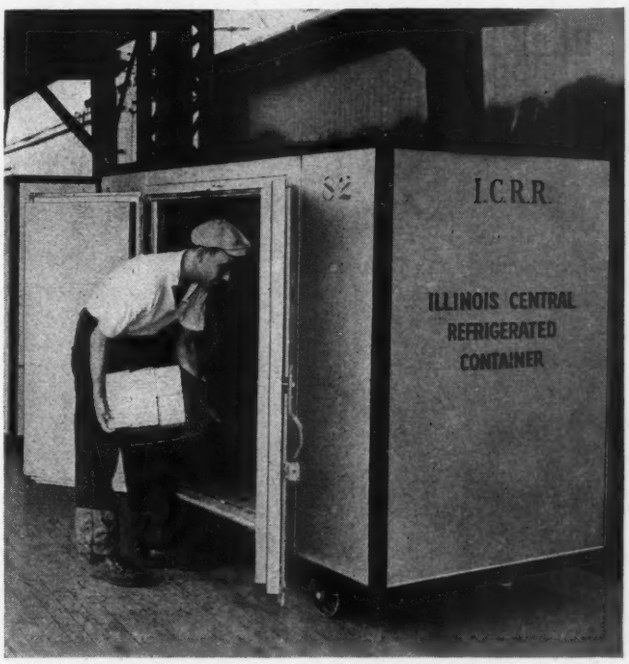
### Election of Officers

The following slate of officers was elected: Chairman, George W. Wall, foreman electrician, Delaware, Lackawanna & Western; vice-chairman, west, L. J. Verbarg, air conditioning engineer, Missouri Pacific; vice-chairman, east, G. E. Hauss, electrical supervisor, Cincinnati Union Terminal; Committee of Direction: S. G. Peterson, assistant master car builder, Seaboard Air Line; F. O. Marshall, assistant chief engineer, Pullman Company; Committee on Nominations: C. E. Wood, engineer train lighting, Chicago, Milwaukee, St. Paul & Pacific; C. W. Nelson, electrical engineer, Chesapeake & Ohio; P. J. Callahan, electrical foreman, Boston & Maine; O. M. Bixby, assistant engineer, New York Central and H. E. Gannett, general welding supervisor, Chicago, Burlington & Quincy.

# Dry-Ice Containers Secure New Traffic

DRY-ICE containers which make every box car a potential refrigerator car, are securing new traffic for the Illinois Central. The containers in use include an insulated metal box of 44 or 58 cu. ft. capacity and an insulated canvas receptacle of 17½ cu. ft. capacity. The former will accommodate 1,000 and 1,400 lb., respectively, and the latter 250 to 300 lb. of products and enough dry-ice to maintain low temperatures for fourth morning delivery.

Dry-ice containers were first tested by the I. C. in October, 1932, when fish were moved from Chicago to Sioux Falls, S. D., but, because of the lack of interest on the part of shippers, the service was not expanded. However, by 1939, changing distribution methods in the food industry, and especially the sudden large demand for quick-frozen products, created a need for a refrigerated service that would adjust itself to less-than-carload




The Insulated Box Container

shipments and in November of that year the I. C. began container experimentation which continued for nearly a year.

As a result of these tests, a number of these metal and canvas containers have been constructed and are now being used between various points on the system. Although most of the containers are operating out of Chicago, a demand is beginning to occur at various other origin points.

About 65 per cent of the products handled are frozen and the balance are items which must be kept cold but not allowed to freeze. Among the frozen items which are finding new markets are oysters, pompano, frog legs,

turtle meat and soft shell crabs from New Orleans, La., to northern points; smelts from Chicago to New Orleans; pie-cherries from Chicago to army camps; and orange juice and fresh cream from Chicago. Recently three tons of quick-frozen Pacific Coast salmon was handled from St. Louis, Mo., to New Orleans.

Among the non-frozen items handled are fresh meats from Chicago to points as far south as Shreveport, La.; tons of yeast from Chicago to an army camp in Mississippi; and cheese from Wisconsin. Fresh fruits and vegetables are also handled.

Upon their arrival at the freight house, products are promptly loaded into the containers and dry-iced. Low-temperature refrigeration for quick-frozen foods is accomplished by placing specific amounts of sliced or cracked dry ice directly on top of the lading. Above-freezing temperatures are controlled by leaving the kraft paper wrappers around the blocks of dry ice as furnished

**Container with Canvas Insulation**

by the distributor and carefully separating the refrigerant from the lading by means of the container bunker or other insulator. On shipments for second or third day delivery, the quantity of dry ice and the amount of insulation separating the refrigerant from the lading are increased.

Records kept during the test period on quick-frozen shipments in metal and canvas containers show that on only two shipments did the temperature at the time of unloading reach 32 deg. Some had a temperature of 12 deg. below zero. The amount of dry ice used ranged from 10 lb. for 134 lb. of lading moving from Chicago to Champaign, to 275 lb. for 2,258 lb. of fish moving from E. St. Louis to New Orleans. Non-frozen shipments during the test period arrived at destination with temperatures ranging between 38 and 50 deg. The amount of dry ice ranged from 5 lb. for 102 lb. of cheese moving from Chicago to Cairo, Ill., to 150 lb. for 933 lb. of sterile cream moving from Chicago to Miami, Fla.

# Communications . . .

## Public Not Well Informed On Degree of R. R. Progress

MINNEAPOLIS, MINN.

TO THE EDITOR:

I was interested in reading the communication appearing in your magazine of October 18, entitled "Think We Defend Managements Too Stoutly." The article generally implies lack of progress on the part of the managements in the operation of our railroads.

As a railway employee having the opportunity to see and know first-hand some of the things real leadership and management are doing with a railroad system in difficult times, I am much inclined to disagree with that article. Also I feel that if you do not strongly support the management, the leadership naturally becomes discouraged and inefficient. . . .

If you will recall, 1928 and 1929 were years of real prosperity and yet passenger traffic was then declining. It is a natural human instinct for each and everyone to own something and that was the period in which the automobile was then making its big play for individually-owned transportation facilities. Nothing can stop such human desires regardless of the type of management. That was a natural evolution in transportation.

It is true there were many who are not connected with the railroads that have the views that railroads are not progressive. Recently I met a college professor who likewise made that allegation, yet from a discussion with him, it appeared that he had very little knowledge of what has actually taken place from year to year in improving equipment and facilities to the best standards to be found anywhere in the world. The proof of that is shown at the present time when the railroads are doing such a wonderful job in handling tremendous traffic for National Defense, smoothly and efficiently. Had not the railroad managements had real foresight in continually improving their plant to high standards, that job could not have been done when called for on short notice in this emergency.

Then again there are no doubt many plans and programs railroad managements could put into operation to make more efficient operation, but are handicapped through numerous regulations and restrictions.

As to public relations, it may be that railroads have not done the best job in selling the product of transportation to the public. It seems to me that a lot of its advertising goes through railroad channels and to railroad people, whereas it should go to the general public for their information. The best proof of progressive management among railroads today is for the public to come and see, and the railroads should open their plants and give the public these opportunities to learn the facts. In the last analysis the public should be vitally interested in our railroad transportation systems because much of their savings, investments and insurance policies are invested in the railroads of our country and the support and good-will of the public are essential to the security of those investments.

E. ANDERSON.

## Owners and Management—Their Duties to Each Other

MADISON, N. J.

TO THE EDITOR:

"The Responsibility of Railroad Management and Labor to the Owners and to the Public" might well be a fitting sequel to your excellent and timely editorial of October 18, entitled "Responsibilities of Railway Owners." I hope that your editorial was read by all who could profit by the truths contained therein!

You might have gone a bit further and pointed out that each

class of railroad owners has a responsibility to the other two, and the public as well.

As one of the "Class Three" group of railroad owners, I submit my ideas as to some ways and means whereby railroad owners may meet their responsibilities, work together for a better railroad, and insure the continuance of free private enterprise in the railroad transportation industry.

#### Nothing Mysterious About Railroading

Just what is a railroad, its justification for existence, and how do its problems differ from those of other industries? A railroad should be a privately-owned public service institution to provide and sell good transportation. Its existence is justified only so long as it serves the public well by providing better and cheaper transportation than its competitors. The service motive must be paramount if the railroad is to prosper as a private enterprise. The basic problems of the railroad do not differ from those of any other form of public utility, being: production, sales, and public relations—although in the past the railroads generally have not recognized the importance of sales and public relations.

For years the railroad industry kept unto itself, being shrouded in mystery which the layman could not penetrate. An example of the tradition (slightly shopworn) that to be a good railroad man one had to grow grey in the service, and that no one outside of the charmed circle could possibly understand railroading, is shown by the answer often given to the layman who had the temerity to ask an old-timer on the railroad a pointed question: "It is easy to see that you are not a railroad man."

That was intended to put the questioner in his place, without the necessity of divulging the real answer—or perhaps the fact that the answer was not known! Thank goodness that product of the golden era when the railroads had no competition is definitely on the way out! There is no mystery in railroad operation, and no reason why a man who has made good in some other line, cannot enter and be successful in the railroad business. More sales-and-public-relations-conscious executives are needed urgently in the railroad industry, if it is to survive the competition which will follow the close of the present war.

Every railroad should try to furnish the best service possible, provide a good living for the employees, and make enough money consistently to insure the owners a reasonable return on their investment. Owners may be divided in three general classes, determined by their reasons for investing, and their interest in the company. First, are the institutional investors who have large sums of money on which they seek a certain, adequate return in dividends. Their interest is primarily financial. Second, are other railroads—sometimes competitors—who might prefer to have no dividends, but get an adequate return on their investment in a different manner. Third, and always last, is the unorganized, inarticulate army of individual small stockholders, who like and have faith in the railroad, so invest their savings in it in the hope of a safe and steady income.

#### Institutional Investors Don't Know Enough to Help Much

If the financial policies of the railroad are sound, and dividends are adequate and regular, the large institutional investors pay little or no attention to the management or operating problems of the railroad. When dividends cease, they become concerned and demand action by the management which by that time has probably exhausted its ideas of how to keep operating in the black. Knowing little or nothing of operations, salesmanship or public relations, institutional investors are unlikely to be able to offer constructive suggestions to frustrated management on how to operate more efficiently, or how to secure additional revenues—which of course is the answer to the problem. With adequate income, fixed and other charges are no problem!

The second class of investor, other railroads, may have purchased the stock for reasons quite the reverse of dividends and building up that railroad. It might be that the stock was purchased to obtain "working control," or a voice in the management, to secure additional business, or perhaps to stifle competition, or possibly to dictate policies detrimental to the railroad in order that it might be purchased outright if and when receivership occurred. (The rights of the public and other two classes of stockholders are not considered as worthy of consideration).

It might be that through working control, rentals and charges could be raised to the point that they exceed any potential dividends, which would be advantageous, for operating expenses come ahead of dividends and are certain, and if operating and other costs were high enough no dividends could be declared; so the railroad owning a relatively small percentage of the total stock outstanding, but with "working control," would profit at the expense of the other classes of owners.

Last, and always least important in the eyes of management and the other two classes of owners, are the small stockholders. They have neither the time, money nor experience, to solicit proxies in order to achieve representation on the board of directors. They are scattered and unorganized—and consequently ignored. They are useful, for they put up money but have no voice in the spending of it. In a reorganization they are not powerful enough to prevent their being swept out of the door, with nothing but a worthless certificate to show for their savings. When the little stockholder attends the annual meeting of the stockholders his proposals (often impractical, and indicating a lack of knowledge) are ignored, brushed aside, or buried under an avalanche of proxies solicited by and for the management.

What can each of these three classes of owners do to meet his responsibilities toward the other classes of owners, the public and management, in order that the railroad may prosper and remain a free private enterprise?

#### Large Investors Need Technical Staffs

The large institutional investors can demand alert, competent management, and check on that by having on their staff men who know enough of practical railroading, salesmanship and public relations, to recognize when, where and how management is falling down. They must detect that fact and suggest remedies to correct the ills before it is too late to avoid receivership.

The second class of owner, the other railroads, must recognize the rights of the other two classes of owners. Their interest should be constructive, and they should help build up the line so that they and the other owners may receive their dividends regularly. They must refrain from exercising "working control" in any way harmful to public interest, or to the rights of the other two classes of owners, management, or the employees.

The great army of individual small investors may be used by management to bring traffic and favorable public reaction to the railroad. Each stockholder can boost his railroad, and be an influence for its good, in his own community—especially if he lives on the line. He should be encouraged to study the problems of the railroad, and offer constructive suggestions, all of which should receive careful consideration by management.

In the event that management and the other two classes of owners refuse to recognize the rights of the individual small stockholders, the only remedy will be through the creation of a governmental agency to guard the rights of those who have no other protection. Such a step would be regrettable, as it would indicate the beginning of the end of free private enterprise in the railroad industry.

Although I have invested savings in the railroads, and am keenly interested in their wellbeing and their future, from the foregoing: "It is easy to see that I am not a railroad man!"

THOMAS T. TABER.

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SMALL BUT BUSY PRIVATE RAILROADS are being operated by the Army's Quartermaster Corps in 168 posts, camps and stations, according to the War Department. These operations involve 140 locomotives, 89 locomotive cranes, 1,481 cars operating over 563 mi. of track. Of the total trackage approximately 497 mi. is standard gage, 52 mi. narrow gage and 14 mi. 5 ft. gage [the latter presumably refers to Army trackage in the Canal Zone which is so gaged to connect with the tracks of the Panama railroad]. The equipment of these railroads ranges from tiny narrow-gage locomotives to the 100-ton Diesel-electric switcher at Camp Blanding, Fla., which handles a standard freight train of 75 to 80 loaded cars.

# NEWS

## Labor Relations on RRs Reviewed

### Impartial research group warns unions on "uneconomic and obsolete" working rules

While the railroads as a whole have one of the best records for labor peace of any of the major industries in the country, nevertheless the peculiar problems of a business which is neither young nor expanding require readjustments by both labor and management "and some sacrifices." This summarizes the position taken by a special research staff of the "Twentieth Century Fund," an endowed research organization, which is completing a survey of the workings of collective bargaining in leading American industries. Advance portions of the forthcoming report were made public on November 10 by Evans Clark, executive director, who called particular attention to the peace record of the railroads as an omen of the ultimate peaceful settlement of the present wage dispute.

"Our findings show," said Mr. Clark, "that there has been no major railroad strike since the shopmen's strike of 1922." Referring specifically to the experience of fact-finding boards, he quoted the research report as saying, "Upon some eighteen occasions since the passage of the Railway Labor Act in 1926, existing disputes were sufficiently serious to warrant the appointment of emergency boards of investigation. With one exception, the recommendations of the boards were accepted by both sides and the disputes ended, although acceptance is in no sense mandatory." The strike record shows, according to the research report, that "in ten of the fifteen years since the enactment of the Railway Labor Act there have been no strikes at all. In each of three years, 1928, 1929 and 1936, there was one small strike. In 1937 there was one small strike, one that was somewhat more serious and two minor stoppages. The years 1938 and 1939 were entirely free from strikes and stoppages."

As an example of still unsolved problems in the railroad industry to which both management and labor must give consideration if the position of railroads in general is to improve, the study cites the question of working agreements. "Appropriate once, some of these are almost certainly obsolete now. There is little doubt that some of them are 'make work' devices. They fall in the same category with much of the train-length and full-crew legislation, and are not conducive to economy nor always necessary for efficient operation. A thoroughgoing revision and modernization of agreements, which would eliminate all uneconomical and obsolete rules, and bring others into line with technical developments in the industry, is a joint responsibility of both management and employees."

Summing up the present status of collective bargaining in the railroad industry, the research staff says, "Management and employees have repeatedly and consistently demonstrated their willingness and ability to work together. Joint negotiations have been successfully extended to many problems common to the whole industry. The legislation recently passed by Congress, embodying, in part, the findings and recommendations of the Committee-of-Six, a joint committee representing the carriers and the organizations, is an outstanding example of cooperative effort to rehabilitate the industry. But that will not be sufficient in itself. Maturity of the railroad industry has brought with it problems which are absent or of less importance in young and expanding industries. If the railroads are to be genuinely rehabilitated, both management and employees will have to make some readjustments and some sacrifices. Collective bargaining has accomplished a great deal on the railroads. Much remains to be done."

### Retirement Board Unemployment Insurance Head Goes to OPM

James Gordon Robinson who has been director of unemployment insurance for the Railroad Retirement Board during the past three years has resigned to become administrative officer in the Office of Production Management. At the Retirement Board, Mr. Robinson held the highest paid civil service position in the government—$10,000 a year. It was stated at offices of the Board that the position would remain vacant for the present.

### Ore "Mined" From Abandoned Railway Shops

The Florida East Coast is making possible the first ore "mining" operation in the state of Florida. The railroad is cooperating with a salvage company to dig up metal on the site of its old shops at St. Augustine, Fla., where some 40 years' accumulation of steel shavings and other scrap are rusting in the soil. Several carloads of this synthetic "ore" have been shipped to a smelter. Some of it, says the railroad, "will eventually find its way into guns and tanks, or into competing trucks and buses—perish the thought!"

## Railroad Sleepers Held Impractical

### Government witnesses in anti-trust suit declare Pullman only possible operator

Two railroaders called as witnesses by the government in its anti-trust suit against Pullman, Inc., and subsidiaries testified in Philadelphia, Pa., last week that it would not be practical for the railroads to operate their own sleeping and parlor car services and that Pullman is the logical operator therefor. The witnesses were apparently selected by government counsel in the belief that their backgrounds qualified them to speak as experts on a large number of roads, and their testimony would, therefore, constitute evidence for the government's contention that Pullman maintains a monopoly of the sleeping car business for the reason that the railroads cannot provide their own service and must, perforce, contract for Pullman service.

In questioning the first witness—Henry F. McCarthy, passenger traffic manager, Boston & Maine and Maine Central—Fowler Hamilton, government attorney, sought to show that because the witness had worked with the federal co-ordinator's staff in an advisory capacity on the passenger traffic report he was qualified as an expert to testify whether *any* railroad could furnish its own sleeping car service. Counsel R. M. Shaw of Pullman objected on grounds that his work with the co-ordinator was not sufficient to qualify him and that the witness "has not yet qualified himself as to the financial side of the picture and it is all a question of financing." After further argument by counsel, the Court held that the witness could testify only with respect to his own road.

In his testimony, Mr. McCarthy declared: "I don't believe it would be practical for us to do business with any other company that I know of, other than the Pullman Company, to secure cars for our local operations or the cars which we are responsible for in the negotiation of contracts in the through line service. The characteristic traffic flow upon the B. & M. and Me. C. varies over a period of years with business conditions and successful salesmanship. The traffic varies considerably, for example, as between summer and winter, holidays and week-ends, and normal load days, and demands for equipment also vary depending on outstandingly large meetings, conventions, etc."

(*Continued on page 809*)

# Giant Pipe Line Is Kayoed Again

## SPAB denies extruded pipe to project already deemed not worthy of steel plate

The Supply, Priorities and Allocations Board has ruled that priority ratings will not be issued for the construction of the proposed National Defense Pipe Line, which was to have been built by the major oil companies on the east coast from Texas to New York, and which was warmly endorsed by Petroleum Co-ordinator Ickes.

On September 16 the Board ruled against priorities for the steel plate out of which it was originally proposed to build the line. It left open, however, the question of permitting construction of the line if extruded pipe were used; and accordingly, a revised application was submitted by the Petroleum Co-ordinator calling for the use of seamless steel tubing in place of pipe made from plates.

In its action, which constitutes a final disapproval of the pipe line project, SPAB held that the value of the line as a defense project was not great enough to justify the high priority ratings that would be necessary. Since defense needs are so great, SPAB ruled, large quantities of critical materials must not be devoted to any project, even if the project is wholly desirable in itself, that is not essential either to the defense program or to the public health and safety.

SPAB recognized the vital importance of assuring the eastern seaboard region an adequate supply of oil, and requested the Petroleum Co-ordinator to explore the possibilities in other methods of getting oil to the seaboard. Among those it cited greater use of railroad tank cars, the possible construction of concrete oil barges, and the possibility that boats of the "sea otter" type could be used to carry oil. (The "sea otter" type boats are of a new design and will be built by the Navy Department in an attempt to decrease the number of sinkings through torpedo action in crossing the Atlantic.) It also cited the savings in oil consumption which might be made through reconversion to coal of certain eastern industrial plants, and restrictions on the use of gasoline for pleasure driving, in case it should not prove possible to bring in sufficient oil for essential purposes through these alternative methods.

In addition, SPAB pointed out that it may be advisable to build other, less expensive pipe lines which, covering shorter distances, would link sources of supply with markets in such a way as to ease the eastern oil supply at a comparatively minor expense in materials. The announcement went on to say that the Board's action is not to be taken as a rejection of the idea of building any pipe lines at all, but is applied solely to this particular project.

Tube to build the line, it was stated, would be available if high priority ratings were granted. The entire quantity needed to build the 1,589 miles which the National Defense Pipe Line would cover could be produced between November 15 of this year and September 1, 1942, it was further pointed out. However, the announcement went on to declare that it would not be possible to get the necessary valves, pumps, motors and tanks built in time for installation as needed without interference with important defense items.

### "All-Out" Allocation Program for Critical Materials

Preparation for "the allocation of all critical materials throughout American industry" was called for last week in parallel actions by the Supply Priorities and Allocations Board and the Office of Production Management. Previously the transition from priorities to allocations had been going on gradually.

SPAB announced that it had authorized Donald M. Nelson, its executive director, to request OPM to obtain detailed production programs, industry by industry, for 1942. It stipulated that these programs should contain ample information to indicate the month-by-month requirements of critical materials needed for the production of military, industrial and civilian items, and essential public services; and it also directed that these programs should show similar requirements for repair parts and capital expenditures.

OPM meanwhile issued an administrative order setting up the machinery by which the whole program of requirements is to be developed, outlined the manner in which the various industrial branches and other units of OPM are to work together toward this end, and instituted a new system of handling preference ratings in harmony with the program.

### A Transit Company Asks "Who's Doing Who a Favor?"

The Philadelphia Transportation Company, operating subway and elevated trains, street cars and buses, has recently posted at all bulletin boards for its employees chatty and informal messages on salesmanship, several of which are reproduced in the November 1 issue of "Transit Journal News."

The most interesting in the series is entitled "Who's Doing Who a Favor." The text runs as follows: "When a man steps from the curb with a token or dime in his hand, and we stop to pick him up . . . who's doing who a favor? This question *can* be answered in one of two ways: (1) that we're doing him a favor by picking him up and taking him where he wants to go; or (2) that he's doing us a favor by offering to buy our product.

"This question will be answered in only one way by the PTC man or woman who understands the principles on which all successful American businesses have been built!"

# Emergency Board in Express Dispute

## President acted when Detroit fight threatened tie-up in eight cities

Because the jurisdictional dispute between the Brotherhood of Railway Clerks and the International Brotherhood of Teamsters as to which shall represent the Railway Express Agency's vehicle-department employees at Detroit, Mich., threatened to tie up express operations in eight other cities, President Roosevelt on November 7 issued a Railway Labor Act proclamation, creating an emergency board to investigate the controversy. Members of the three-man board are Royal A. Stone, instructor at the St. Paul (Minn.) College of Law; M. P. Andrews, Baltimore (Md.) "editor, author and lecturer;" and W. H. Tschappat of Falls Church, Va., retired major general of the U. S. Army.

The board was scheduled to begin its consideration of the case at New York on November 12. While the assignment is a new one for Messrs. Stone and Andrews, Major General Tschappat was a member of the emergency board which earlier this year turned its hand to mediation and brought about a settlement of the wage controversy involving ore dock employees of four railroads at Duluth, Minn., and other upper lake ports.

When the President announced the appointment of the emergency board, the Detroit controversy between the Clerks and the Teamsters (both American Federation of Labor affiliates) had passed through a strike and return to work on the part of the Clerks and a still continuing strike of 60 Teamster members whose president, Daniel J. Tobin, threatened to extend the walkout to members of his union employed by the Express Agency in Cincinnati, Ohio, Cleveland, Newark, N. J., New York, Philadelphia, Pa., St. Louis, Mo., San Francisco, Calif., and Chicago. Upon the issuance of his emergency-board proclamation, President Roosevelt wired Mr. Tobin requesting the latter to direct the Detroit strikers to return to work within 48 hours from 10 a.m. November 8. Mr. Tobin pleaded lack of authority until he could confer with his executive board on November 10 and went on to express his view that the President had been "misinformed as to the real situation by your (National) Mediation Board which our people believe is distinctly prejudiced against Teamsters Union."

"Has the Mediation Board informed you," Mr. Tobin continued, "that Railroad Clerks Union and Teamsters Union are chartered by American Federation of Labor and that Teamsters Union has agreed to meet Railroad Clerks' officials and endeavor to settle trouble and failing Teamsters has offered to submit entire trouble for arbitration and settlement to Executive Council of American Federation of Labor of which Council Mr. (George M.) Harrison, president of Railroad Clerks and Mr. Tobin, president of Teamsters, are both members and Teamsters have of-

fered to sign agreement to abide by decision of Executive Council? Surely the Brotherhood of Railway Clerks cannot take the position that they do not trust the Executive Council by which they are chartered. The Teamsters further agree that if Railroad Clerks accept arbitration the men on strike in Detroit will be ordered back to work immediately. The Teamsters further believe that the American Federation of Labor has the right to adjust question of jurisdiction arising within its own family. This right was recently upheld by the United States Supreme Court. Why can't you, as President, insist on Railway Clerks adjusting this entire matter by accepting honest arbitration in which you and I have always believed? I request you, therefore, from the standpoint of justice and in behalf of all future arbitration necessities that might arise, to reconsider your order and further investigate and not take away from the American Federation of Labor the right to settle matters of jurisdiction within its own body which right, I repeat, has been upheld by the highest court in our land. Awaiting further answer to this request and appeal I shall withhold order issued me by International Board of Teamsters, to request employees of Vehicle Department in Railway Express Agency employment in other large cities to cease work."

Mr. Roosevelt's reply to the foregoing was abruptly brief. After acknowledging the Tobin telegram, the President said: "I have fully considered your answer and reiterate my request." Nevertheless Mr. Tobin followed through on his plan of awaiting authority from his general executive board before issuing to the Detroit strikers the return-to-work order which came on November 10. The Teamster members had been on strike since October 10. Previously, the Clerks members had struck over a wage as well as the jurisdictional issue on October 4, but afterward returned to work at the request of the National Mediation Board. The wage issue was mediated, while the Clerks union have been satisfied on the jurisdictional matter since the Express Agency recognized it as the bargaining agency for its vehicle-department employees at Detroit.

The Presidential proclamation called the dispute one between the Railway Express Agency and the Teamsters, which threatened "substantially to interrupt interstate commerce" to such a degree as to deprive the eight cities listed above and "twenty adjoining suburban cities of essential transportation service." The President's first telegram to Mr. Tobin said that he had been advised that the Detroit "labor difficulties" of the Express Agency "as far as the Clerks are concerned, have now been composed."

## Kansas City Commercial Zone

The Interstate Commerce Commission, Division 5, has determined the zone adjacent to and commercially a part of Kansas City, Mo.-Kans., and contiguous municipalities, within which transportation by motor vehicle in interstate or foreign commerce, not under common control, management, or arrangement for a continuous carriage or shipment to or from a point beyond such zone, is partially exempt from regulation under the Motor Carrier Act. The proceeding is docketed as No. MC-C-258.

## $989,000,000 Waterway Bill Introduced in House

Chairman Mansfield of the House committee on rivers and harbors on November 10 introduced the committee-approved rivers and harbors bill—H.R. 5993, authorizing rivers and harbors works which will cost an estimated $989,000,000. As pointed out in previous issues, the proposed St. Lawrence seaway and power project was embodied in this omnibus bill at the request of President Roosevelt, while other projects included are the Florida Ship Canal, Tennessee-Tombigbee, and a 35-mile segment of the Beaver-Mahoning canal. It was expected that the bill would be reported favorably from the committee on rivers and harbors as soon as majority and minority reports were ready.

A few days before the bill was introduced, President Roosevelt at his November 7 press conference had responded to several questions about the pending measure. The President's responses indicated that he was not particularly concerned over the proposed authorizations for non-defense projects, since the building of such projects can be deferred to a time when they will aid in the shift from a defense to a civilian economy. Mr. Roosevelt went on to insist, however, that the St. Lawrence power project is of course a vital defense need which could not only be authorized but appropriated for at this time. Also, he thinks that there should be an immediate start on the St. Lawrence seaway if possible, although it is not of the same importance as the power project.

Asked if he considered the Florida Ship Canal a defense project, Mr. Roosevelt said that such things are relative—he wouldn't say that from the point of view of defense it was a first priority such as he considers St. Lawrence power to be. As to Beaver-Mahoning, the President couldn't say definitely, although he thought it had been listed as one of the things needed for the steel industry.

The discussion also drew from Mr. Roosevelt a suggestion that the press should clear up in the mind of the public the difference between an authorization bill and an appropriation bill, driving home the fact that an authorization bill doesn't start any work. Continuing, the President said that there are two or three billions of dollars of authorizations dating back 100 years to the Presidency of John Quincy Adams which have never been implemented by appropriations. He conceded, in response to a question, that such a situation indicates that many unworthy projects have been authorized.

Provisions of the bill relating to the St. Lawrence authorize the President to fulfill the undertakings made on behalf of the United States in the joint agreement with Canada. Also, the Secretary of War would be authorized to enter contracts without competitive bidding for the purpose of expediting the project. In this connection the cost-plus-a-fixed-fee form of contract is authorized. Provisions relating to the Florida Ship canal stipulate that "in order to more immediately serve the national defense and alleviate the coastwise shipping problem, the said canal, during the course of construction, shall first be completed to such dimensions as the chief of engineers shall determine to be appropriate for barge traffic." Also, the President is authorized to collect from Florida-canal traffic such tolls "as in his judgment may be reasonably required to provide for its operation and maintenance expense and for the amortization of its construction cost."

## Western Railway Club Meeting

Dr. Charles Copeland Smith, columnist, radio commentator and lecturer, will address the Western Railway Club on "The American Way" at the Hotel Sherman, Chicago, on Monday evening, November 17. The American Locomotive-General Electric technicolor film "Railroadin'" will also be shown.

## U. P. Issues Booklet on Southern Nebraska Properties

An elaborate illustrated booklet showing industrial properties for sale by the Union Pacific in Lincoln, Neb., Beatrice and Fairbury has recently been issued by the Union Pacific as another in its series of descriptions of such properties throughout its territory. The booklet points out Nebraska's unique advantages in availability of raw materials and transportation and freedom from bonded debt or sales, income or nuisance taxes. The civic features of each town, including schools and recreation areas are pictured, as well as extended air views of the properties featured.

## Ickes Named Coal Co-ordinator

President Roosevelt has named Secretary of the Interior Harold L. Ickes as Co-ordinator of Coal for National Defense. In addition to his present duties as Petroleum Coordinator, Mr. Ickes will also be charged with the duty of handling "solid fuel"—coal and coke.

In view of Mr. Ickes' appointment as Co-ordinator of Coal for National Defense. Senator Maloney, Democrat of Connecticut and chairman of the special Senate committee which has been investigating the so-called gasoline shortage on the east coast, has offered S. Resolution 189 which would add coal to the list of commodities which could be looked into by his committee.

## N. Y. Truckers Fail to Get 15 P. C. Rate Boost

The New York Public Service Commission, on November 10, handed down its first decision in a rate case involving motor trucks since the latter were placed under regulation in the state in 1938. It ruled against an increase of 15 per cent in truck rates on small shipments filed last spring by more than 100 members of the New York Motor Carrier Conference and five larger trucking concerns.

The increase was to be applied on shipments less than 2,500 lb. where the rate is less than 45 cents per 100 lb. [It is to be noted that the railroads, by order

*Continued on next left-hand page*

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*Photo Courtesy Southern Pacific Company*

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of the Interstate Commerce Commission, cannot render free pick-up and delivery service on l. c. l. shipments carrying a rate less than 45 cents per 100 lb. Hence the type of shipment on which the motor carriers sought a rate increase might be termed relatively non-competitive.—Ed.] The state commission held that the motor carriers had failed to show that their present earnings were inadequate

## Club Meetings

The Car Foremen's Association of Chicago will hold its next meeting on December 8 at the La Salle Hotel, Chicago, at 8 p. m. V. R. Hawthorne, executive vice-chairman, Mechanical Division, Association of American Railroads, Chicago, will present a paper entitled "Keep the Wheels Rolling."

The Indianapolis Car Inspection Association will hold its next meeting on December 1 at the Indianapolis Union station at 7 p. m.

Walter Bockstahler, a director of the Associated Traffic Clubs of America, will be the guest speaker at the next meeting of the Women's Traffic Club of Greater New York on November 18. He will discuss the activities, accomplishments, aims and purposes of the Associated Traffic Clubs.

## Flat Cars in Demand

W. C. Kendall, chairman of the Car Service Division, has issued a circular calling attention to the "mounting demand" for flat cars which has followed the increased production of tanks and other similar defense material requiring such cars. "The situation with respect to the supply of 50-ft. and longer flat cars," Mr. Kendall said, "justifies the enforcement of special instructions on all railroads to insure the utmost efficiency in the handling of this type of equipment."

Specifically, the Car Service Division chairman stipulated that the flat cars in demand should not be used for loading which can be accommodated with cars of shorter length; and that in the absence of available loading in accordance with Car Service Rules, these cars should be expedited in home route to their owners.

## October Employment 13.47 Per Cent Above 1940

Railroad employment increased another 0.54 per cent—from 1,211,258 to 1,217,750—during the one-month period from mid-September to mid-October, while the October total was 13.47 per cent above October, 1940, according to the Interstate Commerce Commission's compilation based on preliminary reports. The index number, based on the 1935-1939 monthly average as 100 and corrected for seasonal variation, was 116.1 for October as compared with September's 116.4 and October, 1940's 102.3.

October employment in all groups was above that of October, 1940, while all save maintenance of way and structures (down 1.88 per cent) were above the previous month. The largest increase over October, 1940, was the 16.14 per cent rise in the train and engine service group; next in turn came maintenance of way and structures, up 15.21 per cent, maintenance of equipment and stores, up 14.42 per cent, and yardmasters, switchtenders and hostlers, up 11.24 per cent. Increases over the previous month ranged from 0.26 per cent in the group embracing executives, officials, and staff assistants to 2.12 per cent in the train and engine service group.

## National Defense Trains Leave for Tour

The three special trains that will tour the country to help manufacturers determine whether they can do defense work left Washington's Union Station on November 10. Each train consists of six cars equipped with defense "samples" and conference tables, and two cars providing living quarters; on them will be representatives of the Army, Navy, Maritime Commission, and the Office of Production Management who will undertake "to make sure that no qualified manufacturer—no matter where he is—misses an opportunity to get a defense contract for lack of information."

Details of the plan were announced on October 21 by Floyd B. Odlum, director of OPM's Contract Distribution Division, and set out in the *Railway Age* of October 25, page 679.

## I. C. C. Income and Balance Sheet Items for August

The Interstate Commerce Commission on November 8 made public its Bureau of Statistics' latest monthly compilation of selected income and balance sheet items, showing August's net income of the Class I railroads to have been $65,500,129 and that for this year's first eight months at $298,968,517. Later figures for September and this year's first nine months, as reported by the Association of American Railroads, were published in the *Railway Age* of November 1, page 715.

The commission's statement shows that the roads not in receivership or trusteeship had an August net income of $56,834,110 as compared with $27,340,594 in the same month last year; while their net

### SELECTED INCOME AND BALANCE-SHEET ITEMS OF CLASS I STEAM RAILWAYS IN THE UNITED STATES

Compiled from 132 Reports (Form IBS) Representing 137 Steam Railways
*(Switching and Terminal Companies Not Included)*

All Class I Railways

| Income Items | For the month of August 1941 | For the month of August 1940 | For the eight months of 1941 | For the eight months of 1940 |
|---|---|---|---|---|
| 1. Net railway operating income | $111,317,825 | $66,530,175 | $651,089,272 | $369,778,450 |
| 2. Other income | 11,738,642 | 11,028,491 | 94,912,469 | 95,812,768 |
| 3. Total income | 123,056,467 | 77,558,666 | 746,001,741 | 465,591,218 |
| 4. Miscellaneous deductions from income | 2,808,332 | 2,579,486 | 22,440,746 | 20,500,989 |
| 5. Income available for fixed charges | 120,248,135 | 74,979,180 | 723,560,995 | 445,090,229 |
| 6. Fixed charges: | | | | |
| 6-01. Rent for leased roads and equipment | 14,491,115 | 12,403,464 | 106,263,769 | 91,282,057 |
| 6-02. Interest deductions[1] | 39,079,508 | 39,297,743 | 308,947,762 | 315,085,000 |
| 6-03. Other deductions | 119,425 | 118,973 | 950,302 | 1,015,181 |
| 6-04. Total fixed charges | 53,690,048 | 51,820,180 | 416,161,833 | 407,382,238 |
| 7. Income after fixed charges | 66,558,087 | 23,159,000 | 307,399,162 | 37,707,991 |
| 8. Contingent charges | 1,057,958 | 1,011,047 | 8,430,645 | 8,133,580 |
| 9. Net income | 65,500,129 | 22,147,953 | 298,968,517 | 29,574,411 |
| 10. Depreciation (Way and structures and Equipment) | 18,279,448 | 17,258,858 | 143,688,116 | 136,524,897 |
| 11. Federal income taxes | 23,904,738 | 6,728,541 | 116,065,630 | 33,281,839 |
| 12. Dividend appropriations: | | | | |
| 12-01. On common stock | 14,642,690 | 14,296,228 | 65,801,934 | 64,291,665 |
| 12-02. On preferred stock | 5,520,389 | 2,641,467 | 17,591,843 | 14,652,370 |
| Ratio of income to fixed charges (Item 5 ÷ 6-04) | 2.24 | 1.45 | 1.74 | 1.09 |

All Class I Railways

| Selected Asset and Liability Items | Balance at end of August 1941 | Balance at end of August 1940 |
|---|---|---|
| 13. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707) | $554,757,632 | $594,937,963 |
| 14. Cash | $795,673,643 | $537,345,919 |
| 15. Temporary cash investments | 133,685,534 | 64,087,181 |
| 16. Special deposits | 194,496,798 | 89,804,844 |
| 17. Loans and bills receivable | 1,270,125 | 1,368,439 |
| 18. Traffic and car-service balances—Dr. | 33,744,229 | 25,943,174 |
| 19. Net balance receivable from agents and conductors | 76,437,031 | 49,313,310 |
| 20. Miscellaneous accounts receivable | 156,956,053 | 126,012,128 |
| 21. Materials and supplies | 395,918,277 | 341,046,839 |
| 22. Interest and dividends receivable | 14,851,580 | 17,787,867 |
| 23. Rents receivable | 1,146,887 | 1,228,260 |
| 24. Other current assets | 9,394,725 | 7,131,934 |
| 25. Total current assets (items 14 to 24) | 1,813,574,882 | 1,261,069,895 |
| 26. Funded debt maturing within 6 months[2] | $113,657,776 | $71,334,395 |
| 27. Loans and bills payable[3] | $71,228,720 | $117,614,710 |
| 28. Traffic and car-service balances—Cr. | 59,198,044 | 45,701,822 |
| 29. Audited accounts and wages payable | 289,365,740 | 238,527,111 |
| 30. Miscellaneous accounts payable | 50,850,126 | 58,228,743 |
| 31. Interest matured unpaid | 26,637,943 | 21,889,990 |
| 32. Dividends matured unpaid | 1,949,543 | 1,417,950 |
| 33. Unmatured interest accrued | 81,676,677 | 85,153,737 |
| 34. Unmatured dividends declared | 21,642,726 | 17,983,616 |
| 35. Unmatured rents accrued | 23,981,046 | 24,294,884 |
| 36. Accrued tax liability | 325,974,947 | 229,268,123 |
| 37. Other current liabilities | 42,920,020 | 39,679,575 |
| 38. Total current liabilities (items 27 to 37) | 995,425,532 | 879,760,261 |
| 39. Analysis of accruel tax liability: | | |
| 39-01. U. S. Government taxes | 188,745,134 | 85,848,688 |
| 39-02. Other than U. S. Government taxes | 137,229,813 | 143,419,435 |

[1] Represents accruals, including the amount in default.
[2] Includes payments of principal of long-term debt (other than long-term debt in default) which will become due within six months after close of month of report.
[3] Includes obligations which mature not more than 2 years after date of issue.

*Continued on next left-hand page*

*To Secure*

# MAXIMUM TRAIN LOAD-SPEED CAPACITY

## from each pound of steam

*incorporate . . .*

## THE FRANKLIN SYSTEM OF STEAM DISTRIBUTION

The steam locomotive is possessed of a 33⅓% latent power that is forced to remain dormant because of the restrictions of the conventional valve and valve gear. It is now possible to realize *productive work* from this latent power by incorporating The Franklin System of Steam Distribution.

**FRANKLIN RAILWAY SUPPLY COMPANY, INC.** NEW YORK CHICAGO

*In Canada:* FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

## NET INCOME OF LARGE STEAM RAILWAYS

*(Switching and Terminal Companies Not Included)*

| Name of Railway | Net Income After Depreciation — For the Eight Months of 1941 | Net Income After Depreciation — For the Eight Months of 1940 | Net Income Before Depreciation — For the Eight Months of 1941 | Net Income Before Depreciation — For the Eight Months of 1940 |
|---|---|---|---|---|
| Alton | $80,496 | *$1,429,798 | $263,674 | *$1,256,361 |
| Atchison, Topeka & Santa Fe[4] | 17,555,522 | 3,457,329 | 25,720,918 | 11,431,614 |
| Atlantic Coast Line | 7,230,411 | * 687,878 | 8,816,393 | 679,473 |
| Baltimore & Ohio | 15,148,403 | 126,891 | 20,172,456 | 4,944,732 |
| Boston & Maine | 4,686,621 | 419,900 | 5,635,233 | 1,387,875 |
| Central of Georgia[2] | 669,009 | * 1,702,795 | 1,247,246 | * 1,134,529 |
| Central of New Jersey[3] | 73,706 | * 2,421,207 | 952,617 | * 1,499,309 |
| Chesapeake & Ohio | 23,081,878 | 23,021,429 | 28,836,896 | 28,645,803 |
| Chicago & Eastern Illinois | 1,068,986 | * 1,195,986 | 1,481,206 | * 792,282 |
| Chicago & North Western[2] | 1,613,881 | * 6,461,872 | 4,840,328 | * 3,158,068 |
| Chicago, Burlington & Quincy | 6,580,638 | * 1,076,252 | 10,316,376 | 2,443,883 |
| Chicago Great Western | 1,026,578 | * 680,730 | 1,404,187 | * 305,799 |
| Chicago, Milwaukee, St. Paul & Pacific[2] | 3,045,151 | * 9,745,848 | 7,082,106 | * 5,778,258 |
| Chicago, Rock Island & Pacific[2] | 3,791,511 | * 5,570,596 | 6,696,815 | * 2,801,318 |
| Chicago, St. Paul, Minneapolis & Omaha | * 614,709 | * 1,988,690 | * 258,354 | * 1,610,364 |
| Delaware & Hudson | 2,780,929 | 983,739 | 3,544,236 | 1,693,202 |
| Delaware, Lackawanna & Western | 2,744,976 | * 867,213 | 4,393,664 | 769,214 |
| Denver & Rio Grande Western[2] | * 2,386,585 | * 3,645,885 | * 1,502,822 | * 2,816,705 |
| Elgin, Joliet & Eastern | 4,293,540 | 1,860,541 | 5,134,310 | 2,532,569 |
| Erie (including Chicago & Erie)[3] | 5,291,557 | * 1,417,388 | 7,772,038 | 1,012,804 |
| Grand Trunk Western | 1,612,906 | * 450,023 | 2,391,571 | 338,863 |
| Great Northern | 9,691,332 | 2,971,746 | 12,601,246 | 5,437,820 |
| Gulf, Mobile & Ohio | 1,414,670 | * 847,196 | 1,983,894 | * 355,154 |
| Illinois Central | 5,960,213 | * 2,815,083 | 10,415,311 | 1,434,335 |
| Lehigh Valley | 2,581,889 | * 678,589 | 3,906,866 | 710,338 |
| Long Island | * 385,029 | * 942,908 | 663,162 | * 161,365 |
| Louisville & Nashville | 10,945,894 | 5,058,686 | 13,951,001 | 7,958,475 |
| Minneapolis, St. Paul & Sault Ste. Marie[2] | * 2,831,265 | * 3,618,338 | * 1,978,713 | * 2,803,793 |
| Missouri-Kansas-Texas | * 294,793 | * 2,253,037 | 470,294 | * 1,464,470 |
| Missouri Pacific[2] | 1,764,124 | * 8,805,887 | 4,769,753 | * 5,812,181 |
| New York Central[5] | 18,053,638 | 1,007,452 | 30,211,940 | 11,632,397 |
| New York, Chicago & St. Louis | 6,194,704 | 1,102,552 | 7,312,520 | 2,161,480 |
| New York, New Haven & Hartford[2] | 3,845,951 | * 3,991,073 | 6,060,239 | * 1,780,894 |
| Norfolk & Western | 20,536,110 | 21,122,147 | 24,956,776 | 25,275,311 |
| Northern Pacific | 3,227,086 | * 2,182,821 | 5,805,110 | 75,756 |
| Pennsylvania | 28,672,395 | 20,875,005 | 47,745,953 | 38,981,437 |
| Pere Marquette | 2,289,560 | 346,474 | 3,851,139 | 1,860,731 |
| Pittsburgh & Lake Erie | 3,848,397 | 2,962,718 | 5,478,452 | 4,431,811 |
| Reading | 6,083,667 | 3,377,282 | 8,108,666 | 5,407,803 |
| St. Louis-San Francisco[2] | * 854,127 | * 6,440,576 | 1,150,410 | * 4,410,512 |
| St. Louis, San Francisco & Texas | 83,371 | * 186,925 | 83,371 | * 186,786 |
| St. Louis Southwestern[2] | 2,140,746 | * 465,001 | 2,581,500 | * 40,799 |
| Seaboard Air Line[1] | 851,982 | * 4,110,953 | 2,486,374 | * 2,548,061 |
| Southern | 11,150,936 | 1,514,277 | 13,705,008 | 3,866,736 |
| Southern Pacific[6] | 23,713,980 | * 2,327,342 | 29,125,718 | 2,953,768 |
| Texas & Pacific | 1,856,982 | 510,575 | 2,703,676 | 1,319,528 |
| Union Pacific (including leased lines) | 10,783,479 | 6,591,574 | 16,267,349 | 11,685,786 |
| Wabash[1] | 1,752,834 | * 3,050,075 | 3,200,095 | * 1,609,266 |
| Yazoo & Mississippi Valley | 1,002,851 | * 442,862 | 1,368,468 | * 109,760 |

* Deficit.
[1] Report of receiver or receivers.
[2] Report of trustee or trustees.
[3] Under trusteeship, Erie only.
[4] Includes Atchison, Topeka & Santa Fe, Gulf, Colorado & Santa Fe, and Panhandle & Santa Fe.
[5] Includes Boston & Albany, lessor to New York Central.
[6] Includes Southern Pacific Company, Texas & New Orleans, and leased lines. The report contains the following information: "Figures reported above for Southern Pacific Transportation System exclude offsetting debits and credits for interest on funded securities and rentals for leased properties between companies included therein. Operations for 1941 of separately operated Solely Controlled Affiliated Companies (excluding results for Southern Pacific Railroad Company of Mexico), not included in above statement, resulted in a net loss of $33,344 for the month and $1,970,304 for the period. These results include $192,813 for the month and $1,721,763 for the period, representing interest on bonds of such companies owned by Southern Pacific Company not taken into income by S. P. Co. and, therefore, not included in the 1941 income results for the system reported above. The combined results for 1941 for Southern Pacific Transportation System and separately operated Solely Controlled Affiliated Companies (excluding S. P. R. R. Co. of Mexico) amounted to a net income of $4,801,123 for the month and $23,465,439 for the period. Figures herein given exclude results of Southern Pacific Railroad Company of Mexico for the reason that policy was adopted January 1, 1940 of making no further advances to that company, it being required to conduct its operations entirely within its own resources."

income for this year's first eight months was $284,425,045 as compared with $100,513,699 for the same period last year.

One hundred and twelve roads reported net incomes for August, while 17 reported net deficits; in August, 1940, there were 72 net incomes and 57 net deficits. For this year's first eight months 99 roads reported net incomes and 30 reported net deficits, as compared, respectively with 60 net incomes and 69 net deficits in the same period last year. The consolidated statement for all Class I roads and that showing net incomes or deficits of "large steam railways" are given in the accompanying tables.

## Canadian C. O. L. Bonus Boosted to $3.20 Weekly

Cost-of-living bonuses paid to employees of the Canadian National and Canadian Pacific in the Dominion will be increased from $1.93 to $3.20 per week, retroactive to September 1, it was announced in Montreal, Que., this week. The bonus of $1.93 has been in effect since June 1 and the increase of $1.27 is made in accordance with a bonus agreement reached in July which provides for an upward adjustment if and when specified increases in the cost-of-living index are reached. The increase in the index reached an amount specified in the agreement at the close of August; hence the effective date of the new bonus level is made September 1.

The new level was agreed upon after a conference of several days between the management of the railroads and the Minister of Labor concerning certain differences in interpretation. The bonus affects some 140,000 employees.

## Equipment Depreciation Orders

Equipment depreciation rates for six railroads, including the Chicago, Burlington & Quincy and the Central of New Jersey, have been prescribed by the Interstate Commerce Commission in a new series of sub-orders and modifications of previous sub-orders in No. 15100, Depreciation Charges of Steam Railroad Companies.

Rates prescribed for the Burlington are: Steam locomotives, 3.28 per cent; gas-electric switching locomotives, 5.77 per cent; Diesel-electric switching locomotives, 4.92 per cent; Diesel-electric road locomotives, 6.08 per cent; freight-train cars, four per cent; zephyr-type passenger-train cars, 6.1 per cent; gas-electric rail-motor cars, 5.61 per cent; stainless-steel cars, standard type, 3.87 per cent; all other passenger-train cars, 2.98 per cent; work equipment, 3.84 per cent; miscellaneous equipment, 13.87 per cent.

The Central of New Jersey's rates are: Steam locomotives, 2.95 per cent; other locomotives, 3.21 per cent; freight-train cars, 2.79 per cent; passenger-train cars, 2.78 per cent; floating equipment, 2.34 per cent; work equipment, 2.54 per cent; miscellaneous equipment, 11.53 per cent.

## High Court Upholds Commission

The United States Supreme Court at its November 10 session declined to review the case of Abrams versus Scandrett in which the lower court had upheld the right of the Interstate Commerce Commission under section 77 of the Bankruptcy Act to fix maximum allowances for counsel in railroad reorganization proceedings and to set such maximums so low as to deny any compensation to some counsel.

The case came to the high court on the petition by the Chicago, Ill. law firm of Shulman & Abrams which had filed a claim for legal services in the reorganization of the Chicago, Milwaukee, St. Paul & Pacific. In fixing the maximum amount of compensation for attorneys the commission threw out the firm's claim. On brief the attorneys claimed that the commission had power to determine only total maximum allowances and did not possess the right to fix a zero limit.

## Large Fines Assessed for Elkins Act Violations

The Pacific Fruit Express, the Wabash, and Sidney King and R. A. Walton, freight traffic manager and assistant freight traffic manager, respectively of the latter, have entered pleas of guilty in the federal district court in Chicago to indictments charging the granting of concessions in violation of section 1 of the Elkins Act, according to advices reaching the Interstate Commerce Commission. The commission has also learned that Gerstein & Co. and Louis A. Gerstein have pleaded "nolo contendere" to having accepted the concessions.

As a result of the pleas, the district court has assessed the following fines: $5,000 to the Pacific Fruit Express; $10,000 to the Wabash; $2,000 upon each of the two officers of the Wabash; and $1,000 each on Gerstein & Co., and Louis A. Gerstein.

The practice upon which these prosecutions were founded, said an announcement from the commission, was the delivery by the Wabash and the P. F. E. as agent for the Southern Pacific of "advise" shipments of produce in advance of the

*Continued on next left-hand page*

# WOULD YOU SPEND...

## 1 dollar

# TO SAVE..

## 10 dollars

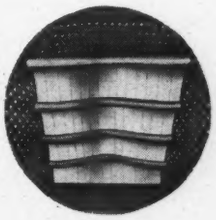
**You accept locomotive arches as a matter of course; as a fundamental in locomotive design. But the arch can only give you the full economy when each course and each arch brick is in place. Paring down the arch in an effort to save $1.00 costs you $10.00 for the extra fuel wasted by the shortened arch.**

**These proportions have been established by repeated tests on various types of motive power. So against any "saving" in arch brick expense by cutting down the arch, mark up $10.00 on the loss side of the ledger.**

***There's More to SECURITY ARCHES Than Just Brick***

**HARBISON-WALKER REFRACTORIES CO.**

***Refractory Specialists***



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***Locomotive Combustion Specialists***

surrender of orders from consignors authorizing the carriers to make such deliveries.

### Representation of Employees

Results of recent elections in representation-of-employees cases have been announced by the National Mediation Board.

The Brotherhood of Railroad Trainmen has been certified as the duly designated representative of Monongahela Connecting yard conductors, yard brakemen and tower switchtenders. On the Pittsburgh & Lake Erie, the International Brotherhood of Electrical Workers, operating through the Railway Employees' Department, American Federation of Labor, has won the right to represent electrical employees, their helpers and apprentices. Other A. F. of L. shop unions—International Association of Machinists; International Brotherhood of Blacksmiths, Drop Forgers & Helpers; and Sheet Metal Workers' International Association—have been certified as representatives, respectively of machinists, blacksmiths, and sheet metal workers, their helpers and apprentices, employed by the St. Louis Southwestern of Texas.

On the Pacific Electric, the United Transport Service Employees of America has won the right to represent the red caps, while the Brotherhood of Railway Clerks has been certified as the representative of clerical, office, station and storehouse employees of the Augusta (Ga.) Union Station Company.

### August Bus Revenues 33.5 Per Cent Above 1940

Class I motor carriers of passengers reported August revenues of $17,343,056, as compared with $12,992,405 in August, 1940, an increase of 33.5 per cent, according to the latest compilation prepared by the Interstate Commerce Commission's Bureau of Statistics from 146 reports representing 147 bus operators. Passengers carried increased 40.6 per cent, from 14,135,917 to 19,871,478.

| | Passenger revenue | | Passengers carried | |
|---|---|---|---|---|
| | August 1941 | August 1940 | August 1941 | August 1940 |
| New England Region | $867,704 | $713,032 | 1,509,160 | 1,123,861 |
| Middle Atlantic Region | 2,499,482 | 2,115,823 | 3,613,278 | 2,892,280 |
| Central Region | 3,207,533 | 2,522,273 | 3,782,334 | 2,979,184 |
| Southern Region | 4,128,905 | 2,716,959 | 4,922,603 | 3,096,034 |
| Northwestern Region | 635,278 | 557,597 | 429,976 | 390,836 |
| Mid Western Region | 1,418,056 | 1,131,481 | 831,011 | 625,658 |
| Southwestern Region | 2,123,925 | 1,417,538 | 2,150,097 | 1,302,684 |
| Rocky Mountain Region | 210,295 | 176,430 | 126,122 | 108,218 |
| Pacific Region | 2,251,878 | 1,641,272 | 2,506,897 | 1,617,162 |

The breakdown by regions of the bus revenue and traffic figures, which exclude data on charter or special-party service, is given in the accompanying table.

### Talcott M. Banks, Jr., Named General Counsel of Study Board

Talcott M. Banks, Jr., Boston, Mass., attorney has been appointed to the $9,000-a-year position as general counsel for the Board of Investigation and Research created by the Transportation Act of 1940. The Board's announcement of November 12 said that in his practice of law Mr. Banks "has specialized to a considerable extent in transportation matters," having "participated actively in the hearings on the four-system plan for railroad consolidation," and having been engaged more recently in New York, New Haven & Hartford reorganization proceedings where he "has directed extensive research into operating as well as financial questions."

Mr. Banks is a native of Englewood, N. J., who received his education at Hotchkiss School and Williams College, having been graduated from the latter in 1928. He received his LL.B degree from Harvard Law School in 1931 and then became associated with the Boston firm of Storey, Thorndike, Palmer & Dodge (now Palmer, Dodge, Barstow, Wilkins & Davis.) He is a member of the bars of Massachusetts, the Supreme Court and the Interstate Commerce Commission. Also, Mr. Banks is secretary of the Boston Bar Association and he has been active in American Bar Association committee work.

### "Pennsylvanian" Derailed at Dunkirk, Ohio

Thirteen persons, including the fireman, were killed and 44 persons were injured when the "Pennsylvanian" of the Pennsylvania, enroute from Chicago to New York, was derailed in Dunkirk, Ohio, at 10:19 p. m. on November 9. As the eight car train was proceeding through Dunkirk, the left front cylinder-head on the locomotive of a 48-car freight train running from Crestline, Ohio, to Ft. Wayne, Ind., on the adjoining westbound track blew out and fell on the rail in front of the oncoming eastbound passenger train just west of the station. Immediately thereafter and before the Pennsylvanian could be flagged, its locomotive struck the cylinder head and it and eight cars left the rails. The locomotive and seven cars turned over, while the rear truck of the last car remained on the rails.

The derailment occurred several hundred yards west of the crossing with the New York Central and the derailed locomotive struck the interlocking tower, causing it to fall upon the locomotive and cars. The train consisted of a combination head-end car, a coach, a diner, a Pullman lounge and three Pullman Chicago-New York and one Chicago-Washington sleeping cars. No Pullman passengers were killed and only two were injured. The wreck fouled the tracks of both the Pennsylvania and the New York Central.

### Water Carrier Committee Report

Under Secretary of Commerce Wayne C. Taylor has received the report of the Regulated River Carriers Committee, which for the past month has been engaged in a study "of devising ways and means of utilizing fully the inland water carriers of the nation in the defense program." The report was not made public and the Commerce Department announcement said that it will now be submitted by Mr. Taylor "to the proper authorities."

The Regulated Rivers Carriers Committee, of which Andrew P. Calhoun of the American Barge Line Company is chairman, includes among its members Alex W. Dunn, Union Barge Line Corporation; Henry F. DeBardeleben, DeBardeleben Coal Corporation and Coyle Lines; Edward Clemens, Mississippi Valley Barge Line Company; A. C. Ingersoll, Central Barge Company; Chester C. Thompson, Inland Waterways Corporation, and W. W. Marting, Ohio River Company.

"The report," said the Commerce Department statement, "examines virtually every aspect of the inland waterway transportation system for handling constantly increasing demands of national defense and the consequent increase in traffic to be expected. Attention is given to new plants coming into operation along the waterways and the important role the waterways may be expected to play in the two-way trade with other American republics. To meet the demand expected, the Committee's report finds that the nation's rivers are well prepared to serve efficiently in the national emergency, with channels in better condition than ever before, permitting larger tows operating on dependable schedules, so that a substantial part of the burden on railroad and other types of transportation may be relieved."

### State Highway Revenues and Expenditures

Receipts from state imposts on highway users and from other state income applicable to highways totaled $1,631,406,000 in 1940, and of that amount $1,013,321,000 was spent on state-administered highways, according to reports received from State authorities by the Public Roads Administration. The disbursements for state highways were $201,665,000 more than in 1939, and "resulted largely from increases in motor vehicle-user revenues," the PRA statement said.

Receipts for State-administered highways totaled $1,045,722,000 in 1940. These funds were derived as follows: $754,479,000 from highway user taxes; $13,057,000 from appropriations, bridge and ferry tolls, property taxes and other imposts; $169,942,000 from federal sources; $89,989,000 from bonds and notes; and $18,305,000 by transfer from local governments and from miscellaneous sources.

The disbursements for construction of State-administered highways totaled $463,389,000 on primary state highways, $30,274,000 on secondary roads under state control in 14 states, $26,905,000 on urban extensions of the state highway systems in 24 states, and $2,217,000 on state park and forest roads in 12 states. Other disbursements for state-administered highways included $215,093,000 on maintenance of these various classes of roads; $54,535,000 for administration, engineering, equipment, and similar items; $26,925,000 for state highway police; $65,828,000 interest

*Continued on next left-hand page*

## 20 New 4-8-8-4 Type Locomotives for the

UNION PACIFIC — THE OVERLAND ROUTE

# All Elesco Equipped

**Type "E" Superheaters**
**Type "TP" Exhaust Steam Injectors**
**Tangential Steam Dryers**
**American Multiple Valve Throttles**




ELESCO

SUPERHEATERS • FEEDWATER HEATERS
AMERICAN THROTTLES • STEAM DRYERS
EXHAUST STEAM INJECTORS • PYROMETERS

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# SUPERHEATER
COMPANY

Representative of
AMERICAN THROTTLE COMPANY, INC.
60 East 42nd Street, NEW YORK
122 S. Michigan Blvd., CHICAGO

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Montreal, Canada
THE SUPERHEATER COMPANY, LTD.

on state highway debt; and $128,155,000 for retirement of state highway bonds, notes and other obligations.

Disbursements other than those for state-administered highways totaled $531,276,000. They included $272,500,000 for county and local roads, $52,792,000 for local city streets, $7,824,000 for debt service on local highway obligations, $46,693,000 for the collection and administration of highway-user revenues such as the gasoline tax, and $198,160,000 of expenditures and fund transfers for non-highway purposes.

## September Accident Statistics

The Interstate Commerce Commission on November 6 made public its Bureau of Statistics' preliminary summary of steam railway accidents for September and this year's first nine months. The compilation, which is subject to revision follows:

| Item | Month of September | | 9 months ended with September | |
|---|---|---|---|---|
| | 1941 | 1940 | 1941 | 1940 |
| Number of train accidents* | 809 | 560 | 6,611 | 5,080 |
| Number of casualties in train, train-service and nontrain accidents: | | | | |
| Trespassers: | | | | |
| Killed | 230 | 205 | 1,681 | 1,584 |
| Injured | 193 | 219 | 1,449 | 1,640 |
| Passengers on trains: | | | | |
| (a) In train accidents* | | | | |
| Killed | 1 | .. | 5 | 66 |
| Injured | 42 | 5 | 757 | 645 |
| (b) In train-service accidents | | | | |
| Killed | 2 | 1 | 9 | 6 |
| Injured | 145 | 125 | 1,294 | 1,271 |
| Travelers not on trains: | | | | |
| Killed | 5 | .. | 10 | 4 |
| Injured | 57 | 63 | 626 | 621 |
| Employees on duty: | | | | |
| Killed | 68 | 48 | 513 | 384 |
| Injured | 2,429 | 1,449 | 18,057 | 13,041 |
| All other nontrespassers:** | | | | |
| Killed | 190 | 156 | 1,478 | 1,382 |
| Injured | 626 | 483 | 4,726 | 4,213 |
| Total—All classes of persons: | | | | |
| Killed | 486 | 410 | 3,696 | 3,426 |
| Injured | 3,492 | 2,344 | 26,909 | 21,431 |

* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than $150 to railway property.

** Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties *for all classes of persons, including both trespassers and nontrespassers,* were as follows:

| | | | | |
|---|---|---|---|---|
| Persons: | | | | |
| Killed | 183 | 139 | 1,339 | 1,244 |
| Injured | 425 | 339 | 3,271 | 2,998 |

## Boston & Maine Would Reopen "Grandfather" Case

The Boston & Maine has asked the Interstate Commerce Commission to reopen for reargument and reconsideration by the entire commission the proceeding wherein Division 5 recently found that trucking operations contracted for by the B. & M. and the Boston & Maine Transportation Company do not suffice to establish rights for those companies under the Motor Carrier Act's "grandfather" clause. The petition also asks that the effective date of Division 5's order be postponed pending further proceedings.

Division 5's report was reviewed in the *Railway Age* of November 1, page 722. In its petition for reconsideration, the B. & M. said: "The objective of the grandfather clause of the Motor Carrier Act was to confirm to all parties the right to continue operation of their motor carrier activities. On the grandfather clause date applicant was engaged in an extensive public service of a character which the commission itself and other informed persons had urged upon railroads generally as a progressive step. The results of the Boston & Maine's enterprise are entitled to recognition as a legitimate activity and the grandfather clause was designed to confirm all established motor vehicle activities which were being conducted on June 1, 1935. This is the sole purpose and it should be construed to give the broadest measure of protection."

## Locomotive Builders Produce 800 Units During First Nine Months

The United States Department of Commerce reports that the locomotive industry, spurred by the defense program, produced more than 800 units in the first nine months of this year, a figure which has not been equalled in any 12-month period for the last 12 years.

According to an article in the forthcoming issue of Domestic Commerce Weekly, the number of employees in the locomotive industry has risen from an annual average of 6,400 to 15,600 in September.

While September shipments of locomotives amounted to 81 units, it is estimated that locomotive output could be doubled, since shipments were less than half the productive capacity available for locomotives. The low ratio of shipment to capacity is attributed in part to the diversion of raw materials to the manufacture of defense products. Locomotives actually in service on October 1 numbered 33,800, or about eight per cent more than were in operation on the same date a year ago.

During September, the estimated number of wage earners in the locomotive industry increased by about 300, accountable in part by the increase in production in locomotives, but to a greater extent to national defense orders for other materials on which locomotive builders are employed. For the first nine months of the year, payrolls are estimated at $19,000,000, an increase of 180 per cent compared to the same period a year ago.

As of the first of October, 56 railway locomotives were on order for foreign accounts. Exports during the first eight months of the year totalled 267 locomotives valued at $3,363,000. Prospects for increased export trade are dependent on the defense program, although it is anticipated that increased business will develop under the Lend-Lease program.

## Former Freight Bureau Inspectors Jailed in False-Weights Case

According to advices received by the Interstate Commerce Commission, two brothers, former temporary fruit inspectors employed by the Transcontinental Freight Bureau's Weighing and Inspection Department, each drew three one-year jail sentences while six juice grape shippers were fined a total of $17,000 last week in the United States District Court for the Northern District of California following their pleas of guilty to indictments charging violations of section 10 (3) Part I of the Interstate Commerce Act.

The brothers, each of whose three sentences will run concurrently, are W. A. Simonson and R. E. Simonson. The six shipper defendants, all from California's Modesto District, and the fines imposed upon each are: Philip Coniglio, $5,000; Philip Chinchiolo, $5,000; Angelo J. Costa, $3,500; Chauncey G. Bianchi, $1,500; Patsy Ursini, $1,000; and Vito Loconte, $1,000. All sentences were based upon one count of the indictments involved, the defendants being placed on probation for three years with respect to other counts. Meanwhile, the I. C. C. announcement said that upon satisfaction of the penalties imposed, all will be on probation also for three years with respect to the counts upon which the penalties were based.

"The indictments," the I. C. C. explained, "charged in substance that the shipper defendants received transportation in interstate commerce at less than the lawful charges by filing with the Tidewater Southern Railway Company false reports of weights on carload shipments of juice grapes consigned to various Eastern terminal fruit markets. The Simonson brothers were charged with having aided and abetted the shippers in the commission of these offenses by approving these false reports and weights. The evidence obtained showed that one of the inspectors solicited and accepted from one of the shippers bribes in the sum of $10 per car for approval of the false reports and weights."

## Maximum Prices for Second-Hand Rail

Maximum prices "that will shortly be established for certain types of second-hand rail sold for further transportation use" were made public by the Office of Price Administration on November 6 "for the convenience of bidders at the scheduled sale on November 7 of the abandoned lines of the New York, Westchester & Boston."

The new OPA schedule will set a ceiling shipping point price for "relaying" rail of the type involved in the Westchester sale of $30 a gross ton minus the lowest established charge for transporting such rail between the shipping point and the basing point nearest in terms of transportation charges. The "nearest" basing point to be established for New York and vicinity will be Philadelphia, Pa. Hence, OPA explained, in the case of a dealer with a yard in New York City, the shipping point price for "relaying" rail from the Westchester lines would be $30 a ton, less the New York-Philadelphia transportation charge of $3.40 a ton, or $26.60. This price will vary, in relation to higher or lower freight costs, for dealers with yards located outside of New York City.

Maximum delivered price of this rail, according to OPA, "shall be the shipping point price plus the lowest actual charge for transporting the rail from the shipping point to the consumer." "Relaying" rail involved in the New York, Westchester & Boston sale is classified as "relaying rail weighing 35 pounds per yard or more

*Continued on next left-hand page*

# LESS FUEL *per* TON MILE

CONSERVATION of fuel is just as important as the conservation of other materials. Application of HUNT-SPILLER *Air Furnace* GUN IRON Wear-resisting Parts in the Valves and Cylinders of your power will help you to reduce the consumption of both fuel and materials. Frictional wear and high superheat temperatures have very little effect on Bushings, Bull Rings and Packing Rings made from H S G I Castings.

Pressure tight performance over maximum periods between renewals will save your road thousands of dollars annually by preventing waste of fuel and expensive replacements.

**H S G I**
**Reg. U. S. Trade Mark**
Cylinder Bushings
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Pistons or Piston Bull Rings
Valve Bushings
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Valve Bull Rings
Crosshead Shoes
Hub Liners
Shoes and Wedges
Floating Rod Bushings
***Finished Parts***
Dunbar Sectional Type Packing
Duplex Sectional Type Packing
for Cylinders and Valves
(Duplex Springs for Above
Sectional Packing)
Cylinder Snap Rings
Valve Rings All Shapes
Light Weight Valves
Cylinder Liners and Pistons
for Diesel Service

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# HUNT-SPILLER GUN IRON
*Air Furnace*

from abandoned short lines, interurban lines, or any other source except the normal operations of Class I railroads."

The forthcoming schedule will designate the following cities as basing points for "relaying" rail of other than Class I railroad origin: Boston, Mass.; Philadelphia, Pa.; Buffalo, N. Y.; Pittsburgh, Pa.; Cleveland, Ohio; Cincinnati; Detroit, Mich.; Chicago; Minneapolis, Minn.; St. Louis, Mo.; Kansas City; Birmingham, Ala.; Houston, Tex.; Los Angeles, Calif.; San Francisco; Portland, Ore.; Seattle, Wash.

In no event will the schedule provide a maximum shipping point of less than $22 per gross ton. Maximum prices for rail that is to be cut up and used for scrap or rerolled into concrete reinforcing bars already have been fixed in the iron and steel scrap schedule.

## RR Defense Problems To Be Discussed at A. S. M. E. Meeting

The technical sessions scheduled for the sixty-second annual meeting of the American Society of Mechanical Engineers to be held at the Hotel Astor, New York, December 1 to 5, inclusive, will begin Monday evening, December 1. On the succeeding days the sessions will begin at 9:30 a. m. carrying through also the evening of Tuesday, December 2.

On Thursday, December 4, there will be two railroad sessions, for which the Meetings and Papers Committee of the Railroad Division has prepared a program of timely import to the railroads, the allied industries, and the cause of national defense. W. M. Sheehan, assistant vice-president of sales, General Steel Castings Company, is chairman of the committee which is under the general direction of A. I. Lipetz, consulting engineer, American Locomotive Company, who is chairman of the Executive Committee.

Other members of the Executive Committee of the Railroad Division are D. S. Ellis, chief mechanical officer, Chesapeake & Ohio; John R. Jackson, engineer of tests, Missouri Pacific; John G. Adair, mechanical engineer, Bureau of Locomotive Inspection, Interstate Commerce Commission, and First Lieutenant C. L. Combes (secretary), Coast Artillery School, Fort Monroe, Va. W. A. Hanley, president of the society, will make the introductory remarks at the first railroad session.

The program of the Railroad sessions and of some of the other divisions of the society which may be of interest to railroad men follows:

MONDAY, DECEMBER 1
8 p. m.
*Fuels*

Trends in Design of Pulverized-Coal Burners, by Henry Kreisinger and V. Z. Caracristi.
Combustion of Pulverized Fuel—Mechanism and Rate of Combustion of Low Density Fractions of Certain Bituminous Coals, by A. A. Orning.

TUESDAY, DECEMBER 2
2 p. m.
*Boiler Feedwater Studies* (1)

Symposium on Caustic Embrittlement:
Results of Laboratory Embrittlement Testing of Boiler Waters, by F. G. Straub.
Embrittlement of Boiler Steel—Experiences with the Schroeder Detector, by T. E. Purcell and S. F. Whirl.
Experience with Intercrystalline Cracking on Railroads, by R. C. Bardwell and H. M. Laudemann.
Studies on the Cracking of Boiler Plate, by P. G. Bird and E. G. Johnson.
Field Data from the Embrittlement Detector, by E. P. Partridge, C. E. Kaufman, and R. E. Hall.
Summary, by W. C. Schroeder.

WEDNESDAY, DECEMBER 3
2 p. m.
*Administrative Organization*

Panel Discussion: What Is Top Management Actually Doing About the Supervisory Problem.
Speakers:—R. E. Gillmor, J. P. Kottcamp, R. F. Gow, H. W. Johnstone, Albert Sobey, R. O. Kennedy, Stewart M. Lowry.

THURSDAY, DECEMBER 4
*Railroad* (1)
9:30 a. m.

Symposium on How Can Mechanical Engineering Assist Railroads in Meeting the Transportation Phases of the National Emergency?
Introductory remarks by W. A. Hanley, president, American Society of Mechanical Engineers.
Keynote speakers:
W. C. Dickerman, chairman of the board, American Locomotive Company.
C. D. Young, vice-president, The Pennsylvania Railroad.
General discussion.

12:30 p. m.
Railroad luncheon.

2 p. m.
Railway Progress Report, by E. G. Young, Research Professor, University of Illinois.
Forum on The Importance of Standardization of Steam Railroad Locomotives and Freight Cars and Their Greater Utilization in Freight Service. Opened by Ralph Budd, president, Chicago, Burlington & Quincy, and commissioner, Transportation Division of the Advisory Commission to the Council of National Defense, and followed by C. H. Buford, vice-president, Operations and Maintenance, A. A. R.
General discussion.

The annual dinner of the society will be held at the Hotel Astor at 6:30 p. m. on Wednesday, December 3.

## Freight Car Loading

Loading of revenue freight for the week ended November 8 totaled 873,585 cars, the Association of American Railroads announced on November 13. This was a decrease of 21,154 cars, or 2.4 per cent, below the preceding week, but an increase of 95,267 cars, or 12.2 per cent, above the comparable 1940 week, and an increase of 91,997 cars, or 11.8 per cent, above the same week in 1939.

As reported in last week's issue, loadings of revenue freight for the week ended November 1, totaled 894,739 cars, and the summary for that week, compiled by the Car Service Division, A. A. R., follows:

**Revenue Freight Car Loading**
For Week Ended Saturday, November 1

| Districts | 1941 | 1940 | 1939 |
|---|---|---|---|
| Eastern | 187,693 | 164,766 | 165,132 |
| Allegheny | 192,271 | 164,269 | 165,342 |
| Pocahontas | 57,227 | 46,561 | 56,398 |
| Southern | 125,238 | 110,263 | 110,775 |
| Northwestern | 134,206 | 126,096 | 120,205 |
| Central Western | 137,338 | 126,879 | 126,633 |
| Southwestern | 60,766 | 55,963 | 56,623 |
| Total Western Districts | 332,310 | 308,938 | 303,461 |
| Total All Roads | 894,739 | 794,797 | 801,108 |
| Commodities | | | |
| Grain and grain products | 35,852 | 35,592 | 37,530 |
| Live stock | 19,821 | 19,830 | 19,809 |
| Coal | 162,303 | 125,305 | 154,994 |
| Coke | 12,748 | 12,350 | 12,121 |
| Forest products | 44,472 | 40,872 | 37,380 |
| Ore | 59,378 | 62,042 | 56,976 |
| Merchandise l.c.l. | 158,921 | 155,303 | 159,160 |
| Miscellaneous | 401,244 | 343,503 | 323,138 |
| November 1 | 894,739 | 794,797 | 801,108 |
| October 25 | 913,605 | 837,657 | 829,358 |
| October 18 | 922,884 | 813,909 | 856,289 |
| October 11 | 903,877 | 811,906 | 839,952 |
| October 4 | 917,516 | 806,004 | 830,102 |
| Cumulative Total, 44 Weeks | 35,816,105 | 30,654,313 | 28,442,753 |

*In Canada.*—Carloadings for the week ended November 1 totaled 72,936 as compared with 72,944 in the previous week and 59,740 in the corresponding week last year, according to the tabulation of the Dominion Bureau of Statistics.

| | Total Cars Loaded | Total Cars Rec'd from Connections |
|---|---|---|
| Total for Canada: | | |
| Nov. 1, 1941 | 72,936 | 33,136 |
| Oct. 25, 1941 | 72,944 | 33,922 |
| Oct. 18, 1941 | 65,406 | 32,271 |
| Nov. 2, 1940 | 59,740 | 27,271 |
| Cumulative Totals for Canada: | | |
| Nov. 1, 1941 | 2,683,459 | 1,307,684 |
| Nov. 2, 1940 | 2,356,430 | 1,081,012 |
| Nov. 4, 1939 | 2,139,979 | 936,529 |

## RR-Owned Sleepers Held Impractical

(*Continued from page 802*)

In illustration of the point that operation of cars by the railroads themselves would cut their ability to provide cars for peak movements, the witness stated that in winter his roads operate 22 sleeping car lines in connection with other roads involving 43 cars. On a normal summer week-end they have 45 car lines, with 90 cars operating over their rails. On a Labor day the road ordered in addition to the latter, about 70 cars from the Pullman pool. The latter originated in their territory, and do not include cars ordered by connections. The witness added that road-ownership would make inter-line movements difficult because "nobody would be obliged to furnish the cars in the through-line service."

Asked if the Me. C. and B. & M. would experience difficulty selling sleeping car tickets and arranging for reservations if they operated their own sleeping car service, Mr. McCarthy declared: "Yes, we would lose the advantage of country-wide knowledge and experience which is found in every ticket office of Pullman . . . and we have already experienced that difficulty in the operation of our parlor cars which we operate ourselves." Additional reasons cited why operation by individual lines would be impractical were: (1) small scope of operations would not allow as extensive a trained personnel to man the cars; (2) would involve disadvantages from the sales standpoint—Pullman has a reputation for service and safety; (3) purchase of new equipment would involve a huge investment in spare cars which would remain idle a considerable portion of the time. Expanding on the latter point, Mr. McCarthy stated that it would be more efficient and economical for the roads to buy second-hand cars from the Pullman company since "our terms would naturally reflect the depreciation and age of the cars." His conclusion, however, was that it would be foolhardy at the present time for roads to buy either new or used cars, for the future is uncertain "except for the certainty that is in the back of any logical passenger man's head that passenger traffic is going to go down markedly in the face of competition and lowered standards of living after this emergency."

In cross-examination the witness testi-

fied that the cost of air-conditioning equipment in Pullman cars on the B. & M.-Me. C. is amortized 75 per cent by the roads and 25 per cent by Pullman. "If we were to abrogate our agreements with the Pullman Company we would lose the benefits of future operation of equipment which we already have helped pay for."

The witness also testified that even if there were no inherent difficulties in financing sleeping car service and it could be operated by the road as are coaches, the B. & M. would still use the unified service of Pullman. Asked why, since the road furnishes its own coaches for peak periods, it cannot likewise furnish its own sleeping cars, he pointed out that the road has accumulated a supply of the former over the years, while it has no sleeping cars in its possession. Also, its spare coach equipment is not up-to-date, while spare Pullman equipment is, for the most part.

Second witness was Thomas A. Hamilton, traffic manager, Metals Reserve Company, a subsidiary of the Reconstruction Finance Corporation. In his railroad career of 42 years, he was connected with a large number of roads and studied many of them while connected with the Railroad Division of the R. F. C. from 1934 to 1940. He was also president of the International-Great Northern from 1922 to 1926, inclusive.

In the course of his testimony, the witness declared: "Catering sleeping car service is a hotel business. It is better done by a specialist . . . The Pullman Company has set up very excellent standards of service and I doubt if they can be duplicated under individual operation . . . Pullman cars are in the category of refrigerator cars—needed one day to move the apple crop of Washington and the next the citrus crop of south Texas."

Mr. Hamilton testified that it is his opinion that it is feasible for a railroad to own a base lot of sleeping cars and have Pullman own the rest and service both classes, but held this scheme not desirable. Roads which tried the self-operation of sleeping cars—the Milwaukee and Central of Georgia, for example—abandoned the operation "because it was costing them a great deal of money and they felt that they could afford to be dependent on the Pullman Company because they would save money."

On November 6, Mr. (Fowler) Hamilton declared that the government takes five distinct positions in its case, and believes that if it is successful in sustaining any one of these questions, it will be sufficient to sustain its case as a whole. Its chief position is that the defendants have monopolized the business of furnishing and operating sleeping cars and of manufacturing sleeping cars which, it claims, is a violation of the law, regardless of the manner in which control was secured or has been exercised. "I will endeavor to show that the defendants acquired this power through the acquisition of all their competitors and finally acquired complete power over the business of manufacturing sleeping cars. No one else in the United States, although there are a number of others who are equipped and could manufacture sleeping cars, can find a market. They have no one to whom they can sell." As a result, he continued, the manufacturing division of Pullman always has a market for its cars and during the depression of the last seven years sold about 60 million dollars worth of equipment to the Pullman Company at a profit which ran as high as 60 per cent a year on certain portions thereof, when other manufacturers were facing bankruptcy. Aided by this lever, Pullman-Standard has been able to make 70 per cent of all the lightweight streamlined cars which have been built in the United States. "If this condition is allowed to exist, before long the Standard company will have completely engrossed the whole of the industry of manufacturing passenger equipment, as the Pullman Company has engrossed the whole of the industry of furnishing and operating sleeping cars.

"Finally we will also endeavor to demonstrate that the one of the factors that sustains the manufacturing monopoly is the cluster of corporations with which Standard is affiliated, through interlocking officers and directors, as a result of its connections with such powerful groups as J. P. Morgan & Co., First National Bank of New York, Mellon Securities Company; such powerful railroads as the New York Central and Pennsylvania and such powerful industrial concerns as United States Steel, duPont, Montgomery Ward, Aluminum Company of America and United States Gypsum. We will argue that no company interested in securing either trade or finance would care to incur the ill will of so powerful a group."

The remaining four positions which the government will seek to prove refer to four monopolistic practices which, it is alleged, the defendants have used to perpetuate control. These are: (1) the requirement that every road deal exclusively with them; (2) control over prices at which they will furnish cars and service; (3) manipulation of contract term so that railroads were forced to enter into long-term agreements and staggering the terms so that no group of railroads would have contracts expiring simultaneously and hence would not enter into some individual agreement for some other service agent; and (4) insistence on controlling the type and quality of equipment furnished to the roads.

Under the last point, Mr. Hamilton referred to efforts of certain roads to get combination coach-Pullman cars on light-traffic lines. Pullman at first refused to furnish such cars, he claimed; then later agreed to put on a combination car only if earnings per car fell below $4,000 per year. This position was a safe one for Pullman to take, he alleged, because no road could afford to run a car at all with earnings so low. Also, Mr. Hamilton declared, certain roads are required by Pullman to pay the cost of improvements to a train including Pullman cars. The Baltimore & Ohio, seeking to modernize its "Capitol Limited," was required to pay for modernization of the Pullman cars thereon, even though Pullman would coup the gains from any increase in traffic by reason of this improvement, he added.

# Supply Trade

**W. J. Thomas,** who has spent nine years with the process equipment division of the **Babcock & Wilcox Co.,** Barberton, Ohio, has been transferred to the executive department of the sales offices of the Babcock & Wilcox Tube Co. at Beaver Falls, Pa.

**George J. Haislmaier** has been appointed sales manager of the contract products division of the **Young Radiator Company.** Mr. Haislmaier, a graduate of Marquette University College of Engineering, has been with this company since 1936 and, until his most recent promotion, had served as assistant sales manager and Government specification engineer of the company's contract division.

**The American Swedo Iron Corporation,** whose property was recently acquired by the present management, began operations on October 27 of this year. The company manufactures high grade muck bars to specifications for stay bolt, engine bolt and chain iron; low phosphorous melting bars; and skelp for pipe. The company's main office and plant are located at Danville, Pa., and a New York office maintained at 230 Park Ave., New York City. This company was incorrectly reported in the *Railway Age* of November 1 as manufacturing staybolt iron.

**J. H. Watters** was elected president of the **Union Asbestos & Rubber Co.** effective November 1, to succeed **L. L. Cohen,** who became chairman of the board of directors. Mr. Watters was formerly general manager of the Marion

**J. H. Watters**

Steam Shovel Company of Marion, Ohio. After attending the University of Virginia, he began his business career with the Watters & Martin Wholesale Hardware Co., Norfolk, Va., in 1905, remaining there through 1925. From January 1, 1926, to October 31, 1929, he was associated with the New York Air Brake Company as vice-president and manager of sales, leaving there to become president and general manager of the Marion Steam Shovel Company.

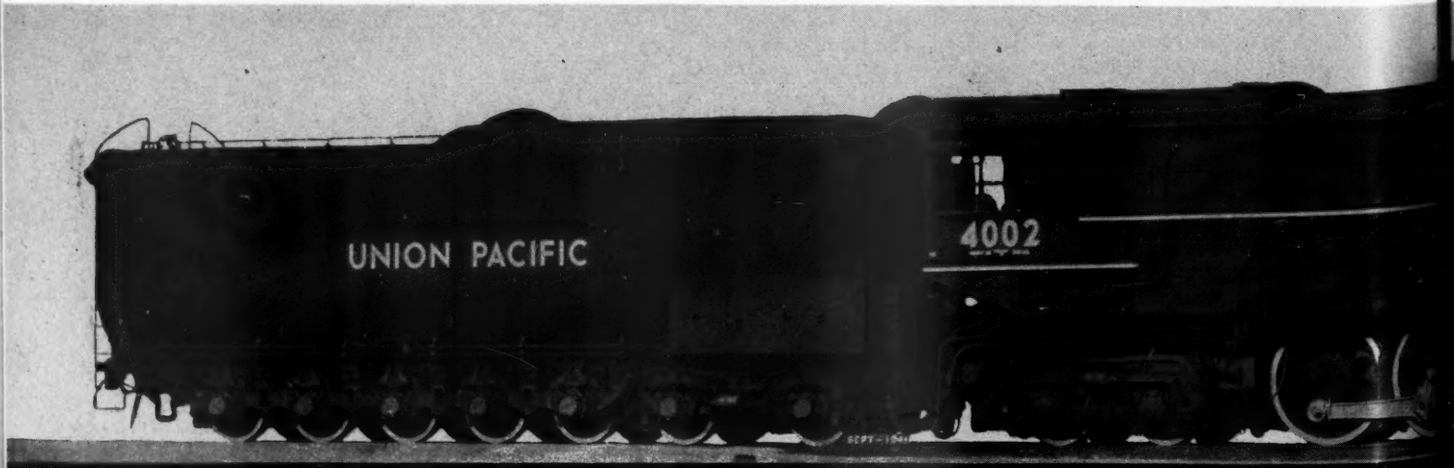
*Continued on second left-hand page*

# "Big Boy"

Alco

## LOCOMOTIVE CHARACTERISTICS

| | |
|---|---|
| Type | 4-8-8-4 |
| Cylinders (Four) | 23¾ x 32 ins. |
| Driving Wheel Dia. | 68 ins. |
| Boiler Pressure | 300 lb. |
| Tractive Power | 135,750 lb. |
| Heating Surface | 5,890 sq. ft. |
| Grate Area | 150 sq. ft. |
| Tank Capacity | 25,000 Gals. 28 Tons |
| Weight—Engine | 762,000 lb. |
| Weight—Tender (Full Load) | 427,500 lb. |
| Weight—Total | 1,189,500 lb. |
| Length Overall | 132 ft. 9 ins. |



# On the Union Pacific

## Handles Maximum Tonnage Without Helpers on 1.14 Per Cent Mountain Grades

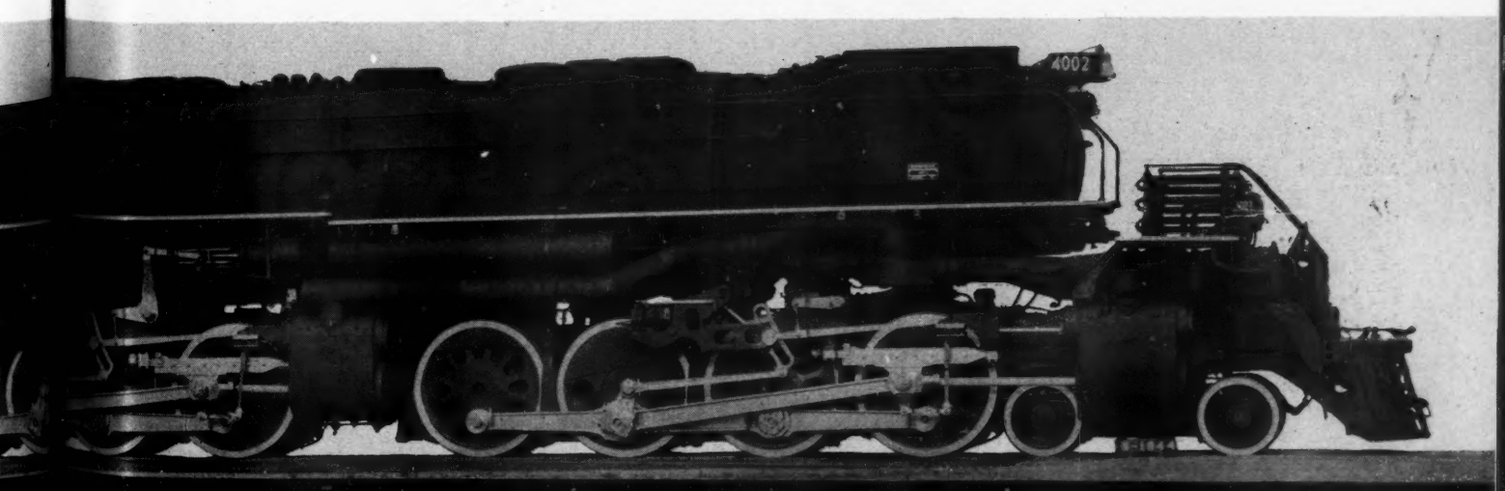
TWENTY of these "Big Boys" are now being delivered to the Union Pacific, moving up rapidly into the line of duty ready to meet the heavier demands of increased defense tonnage and commercial needs smoothly, efficiently and adequately.

These locomotives are the largest in size and heaviest in point of total engine and tender weight of any simple articulated locomotives which have been built. They can operate on any part of the railroad and were designed for speeds up to 80 miles per hour and to produce maximum power output continuously at 70 miles per hour.

SOME DEFENSE PRODUCTS
OF AMERICAN LOCOMOTIVE

**Tanks • Gun Carriages • Fragmentation Bombs • Marine Diesel Engines • Scotch Boilers • Heavy Marine Forgings • Condensers • Coolers • Heat Exchangers • King Posts • Gun Turret Parts • Springs.**

**AMERICAN LOCOMOTIVE COMPANY**
30 CHURCH STREET NEW YORK, N. Y.



# Equipment and Supplies

## LOCOMOTIVES

THE SOUTHERN PACIFIC has ordered three 44-ton Diesel-electric locomotives from the General Electric Company.

THE UPPER MERION & PLYMOUTH has ordered one 80-ton Diesel-electric locomotive from the General Electric Company.

THE MACON, DUBLIN & SAVANNAH has ordered one Diesel-electric switching locomotive of 1,000 hp. from the Baldwin Locomotive Works.

THE UNITED STATES NAVY DEPARTMENT is asking for bids on one Diesel-electric locomotive for delivery to Burns City, Ind. —inv. 9256.

THE UNION RAILROAD has placed orders for seven Diesel-electric locomotives of 1,000 hp. each, allocating five to the Electro-Motive Corporation and two to the American Locomotive Company.

THE UNITED STATES NAVY DEPARTMENT has ordered one 25-ton Diesel-electric locomotive for delivery to Charleston, S. C., from the Atlas Car & Manufacturing Co. The inquiry for this equipment was reported in the *Railway Age* of October 4.

THE WESTERN PACIFIC has received federal court permission to purchase eight Diesel-electric switching locomotives of 660-hp. each from the American Locomotive Company for February and March, 1942, delivery at a total cost of $485,000.

THE UNITED STATES NAVY DEPARTMENT has ordered two Diesel-electric locomotives from the General Electric Company and one from the Whitcomb Locomotive Company, bids for which were invited under schedule 8893 and reported in the *Railway Age* of October 11. The locomotives are for delivery to Hingham, Mass.; Dahlgren, Va., and Burns City, Ind.

## FREIGHT CARS

THE UNITED STATES NAVY DEPARTMENT will open bids November 21, under schedule 9344, for 101 40½-ft. steel-sheathed box cars of 50 tons' capacity and 61 40-ft. steel underframe flat cars of 50 tons' capacity. The Army-Navy munitions board preference ratings of A-1-a and A-1-b will be assigned to the equipment which is for delivery to naval ammunition depots as follows:

| Naval ammunition depot | No. of cars |
|---|---|
| Burns City, Ind. | 30 box—18 flat |
| Charleston, S. C. | 10 box— 6 flat |
| Fallbrook, Cal. | 10 box— 6 flat |
| Hingham, Mass. | 15 box— 5 flat |
| Hawthorne, Nev. | 4 box— 6 flat |
| Iona Island, N. Y. | 10 box— 2 flat |
| Mare Island, Cal. | 10 box—10 flat |
| St. Julien's Creek, Portsmouth, Va. | 12 box— 8 flat |

THE MATHIESON ALKALI WORKS has ordered six box cars of 50 tons' capacity from the American Car & Foundry Co.

THE LEHIGH VALLEY has ordered 1,000 coal cars of 50 tons' capacity from the Bethlehem Steel Company. The planned purchase of this equipment was first reported in the *Railway Age* of September 27.

## SIGNALING

THE MISSOURI PACIFIC has placed an order with the General Railway Signal Company covering materials for an absolute permissive block signaling installation between Arcadia, Mo. and Desoto. The order includes 70 three-position Type-D color-light signals, and accessories.

THE CENTRAL BRAZIL RAILWAY has been authorized by degree-law to contract with an American company to furnish traffic control equipments for installation on the Santos Dumont-Lafayette and the Lafayette-Bello Horizonte lines as well as other equipment for signal cabins, according to a report by the Foreign Commerce Weekly of the United States Department of Commerce. The contract will be made in dollars up to a maximum of $1,571,000, f. a. s. New York, and be payable in 14 semi-annual installments.

# Construction

ATLANTIC COAST LINE.—This company has asked the Interstate Commerce Commission to extend from March 31, 1942, to March 31, 1943, the time within which it must complete the construction of a one-mile extension in Columbus County, N. C. The case is docketed as Finance Docket No. 11709.

CANADIAN NATIONAL. — *Correction.* — Reference to a contract by this road for construction of a coaling station at Watrous, Sask., in the *Railway Age* of October 25, erroneously stated the amount of the contract to be $150,000. This figure should be corrected to read $12,291.

MISSOURI PACIFIC.—A contract amounting to $63,107 has been awarded Moran & Buckner, Muskogee, Okla., by the Oklahoma State Highway Commission for the construction of a concrete and steel highway bridge for U. S. highway No. 69 over the tracks of the Missouri Pacific in the northwest part of Wagoner, Okla. The bridge will have three I-beam spans 44, 60 and 44 ft. long, supported on concrete piers carried to rock and skeleton-type abutments on concrete piles. It will be skewed at an angle of 67 deg. with the tracks and will provide a 28-ft. roadway and two 18-in. sidewalks. The contracts also includes 0.45 mile of grading, drainage and paving, including the approaches to the overpass.

PENNSYLVANIA. — This company has awarded contracts to the James McGraw Company of Philadelphia, Pa., for construction of the New York Avenue overhead bridge at Washington, D. C., and to the George A. Fuller Company for the construction of passenger service facilities at Long Island City, New York.

# Financial

ATLANTIC COAST LINE.—*Abandonment.* —This company has sought Interstate Commerce Commission authority to abandon a line extending from Eutawville, S. C., to Ferguson, 5.6 miles.

BOSTON & MAINE. — *Abandonment by the Franklin & Tilton.*—The Franklin & Tilton and the Boston & Maine, respectively, have asked the Interstate Commerce Commission for authority to abandon a line and the operation thereof extending 6,000 ft. easterly from Franklin Junction, N. H.

BOSTON & MAINE.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon a line extending northerly from Topsfield, Mass., to Newburyport, 15.5 miles, and that portion of its Georgetown branch extending northwesterly from Georgetown, Mass., to Paper Mill, 4.5 miles.

CHICAGO HEIGHTS TERMINAL TRANSFER. —*Bonds.*—Division 4 of the Interstate Commerce Commission has modified its order of February 12, 1937, so as to permit the modification of the terms of $509,000 of this company's first mortgage bonds, series due 1967, so as to provide for the payment of additional sums into the sinking fund for those bonds. The report points out that the request was made by the company in order that it would be in the position to make increased sinking fund payments when its revenues are sufficient to enable it to do so.

ERIE.—*Reorganization and Acquisition.* —In order to simplify its financial and corporate structure and to carry out its plan of reorganization under section 77 of the Bankruptcy Act, this company has asked the Interstate Commerce Commission for authority to acquire control of the New York, Lake Erie, and Western Coal & Railroad and the West Clarion by purchase of their capital stock. At present the Erie operates the roads under lease.

LIVE OAK, PERRY & GULF.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon a line extending from Valuation Station 2410 plus 12 to Valuation Station 3363 plus 54, 18 miles, all in Taylor County Fla.

LOUISVILLE & NASHVILLE.—*Bond Redemption.*—This road will redeem on January 1, 1942, at 105 plus accrued interest, $146,000 principal amount of its unified mortgage bonds with extension agreements of Series B, due January 1, 1960. Redemption is made possible through an unexpended sinking fund on deposit with the Central Hanover Bank & Trust Co., trustee.

MINNESOTA, DAKOTA & WESTERN.—*Abandonment of Operation.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon operation under trackage

rights, over its so-called Galvin branch, owned by the International Lumber Company and extending from Galvin Junction, Minn., to Brawley, 0.8 mile.

MISSOURI-KANSAS-TEXAS. — *Extension of R. F. C. Loan.*—This company has asked the Interstate Commerce Commission to approve an extension to December 30, 1944, of the maturity of $2,314,239 due on a loan to the Reconstruction Finance Corporation which matures December 30, 1941. The amount outstanding on the loan is $2,814,239, and the company proposes to pay $500,000, thus leaving $2,314,239 still owing.

MISSOURI PACIFIC.—*Reorganization.*—In an effort to get its list of present bondholders as up to date as possible so that its proposed balloting of bondholders (announced in last week's issue, page 756) may not be "a farce," the road has placed an advertisement in 20 newspapers which takes the form of an open letter. Signed by J. S. Pyeatt, chairman of the road, the letter reads:

"Have you become an owner of Missouri Pacific or International-Great Northern bonds since March, 1933?

"If so, your address may not be known and you may be unable to vote either to reject or accept the proposed reorganization plan.

"We feel you should reject the plan, which we believe has been made unworkable by the 1941 revenue act and which has been made obsolete by higher earnings. A plan can be prepared which will transmit our earning to our security holders instead of paying them out in taxes."

MISSOURI PACIFIC.—*New Directors.*—Directors of this road, meeting in New York on November 6, elected to the board of directors Marion B. Pierce, Robert W. Atkins, T. C. Davis and R. J. Morfa, all of New York, to fill existing vacancies. Mr. Morfa succeeds William Wyer, of Newark, N. J., whose resignation as a director and secretary-treasurer of the railroad corporation was accepted at the meeting.

Mr. Wyer, who was elected secretary-treasurer in 1929, in his letter of resignation stated that he "felt for some time that there was an inconsistency between my holding the position as an officer and director of the Missouri Pacific and the fact that my firm [William Wyer & Co.] is employed by that company in connection with its reorganization plan." He added, however, that he was "loath to resign my official connection with the Missouri Pacific at a time when its principal stockholding interests were not in a position to devote much time or money to Missouri Pacific affairs, and I was afraid that, if I severed my connection under those circumstances, I would be letting down the many smaller stockholders of the Missouri Pacific who had no other means of carrying on their fight for justice in the reorganization." Noting that the Alleghany Corporation has recently completed its own reorganization, and is in a position to take an active interest in affairs of the road "the same considerations no longer govern, and I believe it would be much more consistent with my professional position if I were to sever this connection."

NEVADA COPPER BELT.—*Acquisition and Stock.*—The Nevada Copper Belt Railway, a new company, has asked the Interstate Commerce Commission for authority to purchase the properties of the Nevada Copper Belt Railroad at a foreclosure sale. At the same time the new company has sought authority to issue 11,458 shares of capital stock of a $10 par value, the proceeds to be used to purchase the properties of the bankrupt company.

NEW YORK, CHICAGO & ST. LOUIS.—*Pledge of Bonds.*—This company has asked the Interstate Commerce Commission to amend its order of June 7, 1941, so as to permit it to pledge and repledge from time to time to and including June 30, 1943, $3,566,000 of extended Lake Erie & Western second mortgage, five per cent bonds as collateral security for a short-term note of $2,400,000. I. C. C. authority for the extension and pledge of the bonds was noted in the *Railway Age* of June 21, 1941, page 1135.

NORFOLK SOUTHERN.—*Note and Equipment Trust Certificates.*—To carry out its final plan of reorganization this company has asked the Interstate Commerce Commission for authority to issue and sell to the Reconstruction Finance Corporation a $368,000 four per cent, 10-year note or notes, to be secured by the pledge of its first mortgage bonds in the principal amount initially not in excess of 110 per cent of the face amount of the note. At the same time the reorganized company also seeks authority to assume liability for $1,927,000 of equipment trust certificates now outstanding.

PERE MARQUETTE. — *Abandonment.* — This company would be authorized to abandon a branch line extending from a point of connection with a main line at Tappan, Mich., westerly to Almont, 30.1 miles, if Division 4 of the Interstate Commerce Commission adopts a proposed report of its Examiner A. G. Nye.

ROBY & NORTHERN.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon its entire line of railroad extending from Roby, Tex., to North Roby, 4.7 miles.

SAVANNAH & SOUTHERN.—*Deficit Settlement.*—Division 4 of the Interstate Commerce Commission has determined that the amount payable to this company under provisions of section 204 of the Transportation Act of 1920, as amended, is $3,018, which amount it has certified in partial liquidation of an amount of $3,565, due from the company to the United States Government on account of the fact that the company retained $3,565 in excess of the minimum net railway operating income guaranteed under the provisions of subdivision (d) of section 209.

The report goes on to point out that the operations of this carrier ceased in August, 1923, and subsequently its railroad property was dismantled and sold for junk. It appears from the report that the railroad kept more money during the period of private operation under government control than it was entitled to and the government has never been paid the amount owing to it. As a result of the present redetermination, the $3,018 due the carrier under another section of the Transportation Act of 1920 will be credited against the road's unpaid debt of $3,565, leaving a balance of $547 still owing to the government.

SEABOARD AIR LINE.—*Equipment Trust Certificates and R. F. C. Financing.*—Division 4 of the Interstate Commerce Commission has approved a plan whereby this company will issue and sell to the Reconstruction Finance Corporation $3,552,000 of 2½ per cent equipment trust certificates, maturing in 24 semiannual installments of $148,000 on April 1 and October 1, beginning April 1, 1942, and ending October 1, 1953.

SOUTHERN PACIFIC. — *Abandonment.* — This company has asked the Interstate Commerce Commission for authority to abandon its Duarte branch extending from Alhambra, Calif., to the end of the line at Duarte, 13.3 miles.

SOUTHERN PACIFIC. — *Abandonment by the Texas & New Orleans.*—The Texas & New Orleans would be authorized to abandon a branch line extending from Luling, Tex., to Lockhart, 14.7 miles, if Division 4 of the Interstate Commerce Commission adopts a proposed report of its Examiner Jerome K. Lyle.

SUSQUEHANNA & NEW YORK.—*Abandonment.*—This company would be authorized to abandon its entire line of railroad extending from Towanda, Pa., to Marsh Hill Junction, 42.2 miles, a branch line extending north from Marsh Hill, Pa., to Miners Run Mine, 4.3 miles, its terminal facilities at Williamsport, Pa., and operation under trackage rights over a line of the Pennsylvania from Marsh Hill Junction, Pa., to West Williamsport, 21.3 miles, if Division 4 of the Interstate Commerce Commission adopts a recommended report of its Examiner T. K. Carpenter.

The authority to abandon would be granted only on the condition that within 40 days after the issuance of the certificate the company would sell the line, or any part thereof, to any responsible person, firm, or corporation offering to purchase it for continued operation at a price not less than its fair net salvage value.

## Average Prices of Stocks and Bonds

| | Nov. 12 | Last week | Last year |
|---|---|---|---|
| Average price of 20 representative railway stocks.. | 27.94 | 29.51 | 31.62 |
| Average price of 20 representative railway bonds.. | 64.83 | 65.63 | 61.29 |

## Dividends Declared

Pittsburgh, Bessemer & Lake Erie.—6 Per Cent Preferred, $1.50, semi-annually, payable December 1 to holders of record November 15.

Rutland & Whitehall.—$1.50, payable November 15 to holders of record November 1.

Norfolk & Western.—$2.50, quarterly, payable December 19 to holders of record November 29.

Reading Company.—First Preferred, 50¢, quarterly, payable December 11 to holders of record November 20.

Cleveland & Pittsburgh.—87½¢, quarterly; Special 50¢, both payable December 1 to holders of record November 10.

*Continued on second left-hand page*

# GM Diesels

GM Diesel Switchers deliver year round dependable service with greater starting effort, superior flexibility, high availability, more work output, greater safety, smooth starts and stops for greater protection to cars and lading, lower operating costs — fuel — servicing — repairs — and fewer locomotives required to meet present day demands.

Three 2000 Hp. GM Diesel Passenger Locomotives for "The Southerner" and four 4000 Hp. Diesels for "The Tennessean" and "The Crescents" provide the finest in fast, luxurious, low cost transportation with the utmost of safety and travel comfort.

THE SOUTHERN
SR
SERVES THE SOUTH

GENERAL MOTORS
LOCOMOTIVES

ELECTRO-MOTIVE
SUBSIDIARY OF GENERAL MOTORS

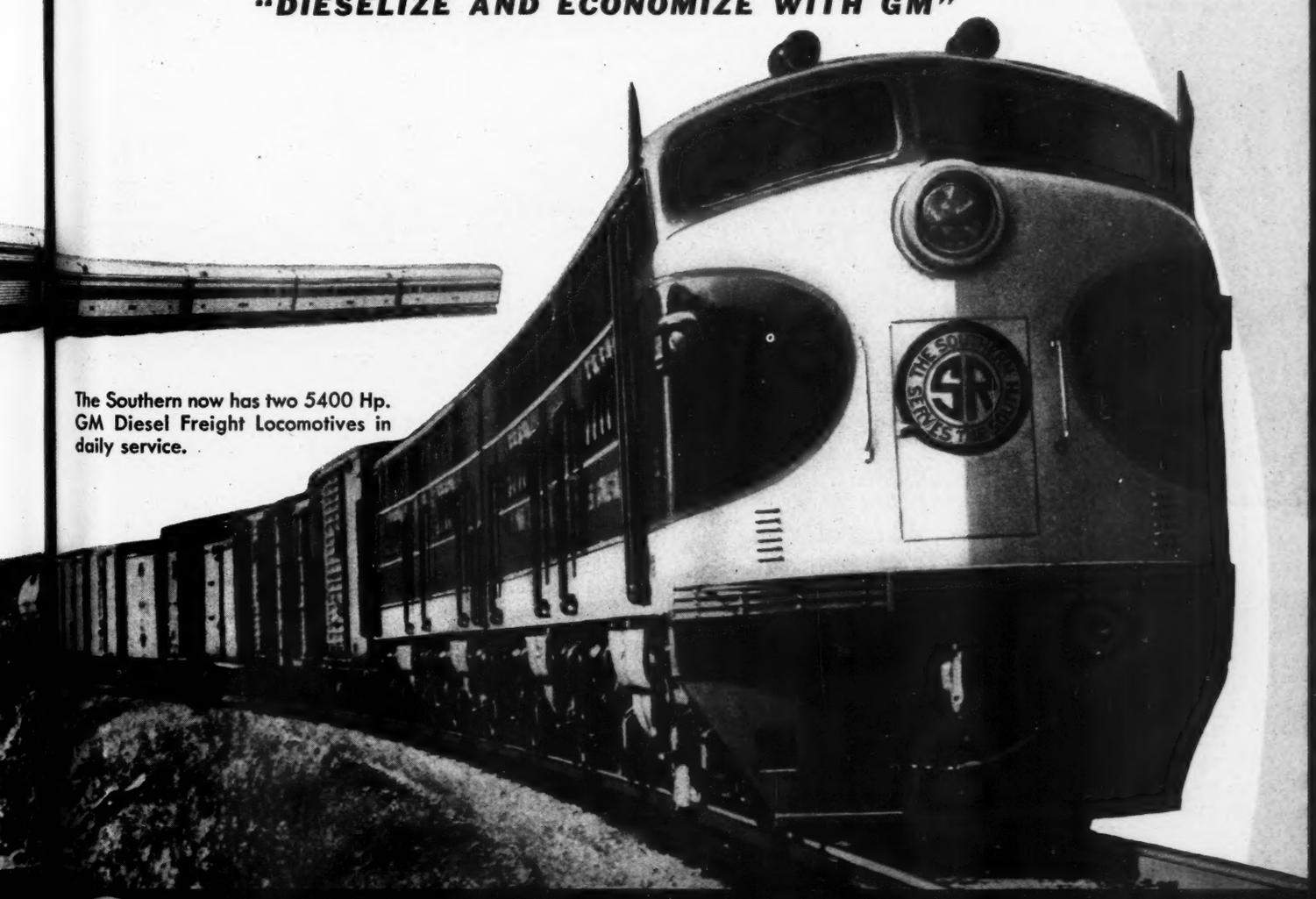
# *For All Services on the*

# SOUTHERN

THE SOUTHERN recently stepped into the lead as the first Eastern railroad to adopt GM Diesel freight locomotives and to use Diesel power for all classes of service.

GM Diesel freight Locomotives have already demonstrated remarkable reliability of performance, exceptionally high availability and the ability to haul greater tonnage on existing schedules or the same tonnage on faster schedules — resulting in marked reductions in operating costs . . . Never before in all railroad history has any type of motive power provided so many possibilities for greater operating efficiency and economies as the GM Diesel.

***"DIESELIZE AND ECONOMIZE WITH GM"***



The Southern now has two 5400 Hp. GM Diesel Freight Locomotives in daily service.

## CORPORATION

LA GRANGE, ILLINOIS, U. S. A.

# Railway Officers

## EXECUTIVE

**Orville Bullington** has been elected president of the Wichita Falls & Southern, with headquarters at Wichita Falls, Tex., succeeding **Frank Kell,** deceased.

**J. C. Mehaffey** has been appointed second vice-president of the Panama Railroad, with headquarters at Balboa Heights, C. Z.

**C. McDonough** has been elected president of the Lake Superior Terminal & Transfer Railway, with headquarters at Duluth, Minn., succeeding **G. H. Jacobus.**

**George J. Bergevin,** auditor of the Detroit & Mackinac, has been elected second vice-president and auditor, with headquarters as before at Tawas City, Mich.

**Clarence D. Johnson,** general agent on the Texas & Pacific at El Paso, Tex., has been promoted to assistant to the president, with headquarters at New Orleans, La., succeeding **Oliver B. Webb,** whose death on September 24 was reported in the *Railway Age* of October 4.

**D. A. Lindley** has been appointed assistant to the president of the Canton railroad, with headquarters at Baltimore, Md. Mr. Lindley will perform such duties as may be assigned to him, giving particular attention to the development of new business, especially the location of new industries. **Milton Shreck,** secretary and treasurer, has been elected a vice-president.

**Holcombe Parkes,** associate director of public relations of the Association of American Railroads, with headquarters at Washington, D. C., has been appointed assistant to the president of the Southern, in which position he will handle public relations and such other matters as are assigned to him by the president. Mr. Parkes was born at Mount Vernon, Ill., on March 14, 1896, and attended the University of Illinois, Urbana, Ill. He began his career by working during and between school terms for several newspapers and the Pullman Company. During the World War he served in the French Army and was later a lieutenant, infantry, U. S. Army. Between services in the two armies Mr. Parkes was wire editor and subsequently bureau manager of the Associated Press at Chicago and Green Bay, Wis. From 1919 to 1923 Mr. Parkes was associate editor of *Railway Age* and engaged in public relations work for the Association of Railway Executives at Chicago. On April 1, 1923, he became editor of the Norfolk & Western Magazine, which position he still holds. On January 1, 1928, he became also manager of the advertising department of the Norfolk & Western, at Roanoke, Va. From January 1 to July 1, 1936, his services were loaned to the Association of American Railroads to assist in organizing its public relations program. On July 1, 1936, Mr. Parkes became associate director of public relations of the Association.

**Holcombe Parkes**
Blank & Stoller

## FINANCIAL, LEGAL AND ACCOUNTING

**J. J. Castagne** has been appointed secretary-auditor of the Walla Walla Valley, with headquarters at Seattle, Wash., succeeding **E. Askevold,** secretary, who has retired.

**F. Saenz Navarrette,** acting auditor of the Ferrocarril Kansas City, Mexico & Oriente, S. A., has been appointed general auditor, with headquarters as before at Chihuahua, Chih.

**Charles F. Hanson,** formerly manager of the Tacoma (Wash.) office of the state tax commission, has been appointed attorney for the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Seattle, Wash.

**F. L. Paetzold** has been elected treasurer and **George H. Hess, Jr.,** comptroller of the Lake Superior Terminal & Transfer Railway, with headquarters at St. Paul, Minn., succeeding **P. B. Lacy** and **L. A. Behler,** respectively.

**C. A. Whonsetler,** secretary and assistant to the financial officer of the Chicago, Aurora & Elgin, has been appointed financial officer for the receivers of both the Chicago, Aurora & Elgin and the Chicago North Shore & Milwaukee, with headquarters as before at Chicago, succeeding **Charles Edwin Thompson,** whose death on July 24 was reported in the *Railway Age* of August 2. **J. H. M. Clinch** has been appointed secretary and assistant to the financial officer of the Chicago, Aurora & Elgin, replacing Mr. Whonsetler.

## OPERATING

**W. B. Frame,** assistant superintendent on the Canadian National, with headquarters at Prince Albert, Sask., has been transferred to Dauphin, Man., succeeding **S. F. Dingle,** whose promotion to superintendent at Dauphin was reported in the *Railway Age* of September 20. **W. J. Skeates,** general yardmaster at Saskatoon, Sask., has been advanced to assistant superintendent at Prince Albert, relieving Mr. Frame.

**O. B. Keister, Jr.,** has been appointed trainmaster on the Southern, with headquarters at Charlottesville, Va.

**C. N. Stedman,** assistant to the general manager of the Coast lines of the Atchison, Topeka & Santa Fe, with headquarters at Los Angeles, Cal., retired on November 1.

**E. C. Blanford,** yardmaster on the Illinois Central at Clinton, Ill., has been promoted to trainmaster, with headquarters at LaSalle, Ill., succeeding **L. F. Powell,** who has been assigned to other duties.

**B. H. Harbin** has been appointed assistant superintendent of the Montgomery and New Orleans division of the Louisville & Nashville, with headquarters at Mobile, Ala., succeeding **W. M. Boykin,** who has been assigned to other duties.

**J. F. Sheeran** has been appointed assistant to the general manager of the Western lines of the Baltimore & Ohio, with headquarters at Cincinnati, Ohio, succeeding **Earl Blackburn Russell,** whose death on September 27 was reported in the *Railway Age* of October 4.

**Glenn W. Curtis,** superintendent of the Eastern division of the Western Pacific, with headquarters at Elko, Nev., has been transferred to the Western division, with headquarters at Sacramento, Cal., succeeding **John J. Duggan,** who, in turn, has been transferred to the Eastern division, relieving Mr. Curtis.

**S. A. Brownlie,** terminal trainmaster on the Louisville & Nashville at Corbin, Ky., has been promoted to assistant superintendent on the Louisville division, with jurisdiction over the Louisville terminals, the line between Louisville, Ky., and Maplewood and all branch lines on that division, except the Memphis branch.

**Frank H. Cook,** assistant chief engineer on the International-Great Northern (part of the Missouri Pacific Lines), with headquarters at Palestine, Tex., has been promoted to superintendent of the Palestine-San Antonio divisions, with the same headquarters, succeeding **Earl Sullivan,** whose promotion to general superintendent of transportation of the Missouri Pacific Lines, with headquarters at St. Louis, was reported in the *Railway Age* of October 4.

**G. S. Smith,** division engineer of the Joplin-White River divisions of the Missouri Pacific, with headquarters at Nevada, Mo., has been promoted to assistant superintendent of those divisions, with the same headquarters, succeeding **M. F. Weeks,** transferred. **E. W. Stanley,** who has been on a leave of absence because of illness, has resumed service as trainmaster at Little Rock, Ark., relieving **H. D. Masters,** who has been assigned to other duties.

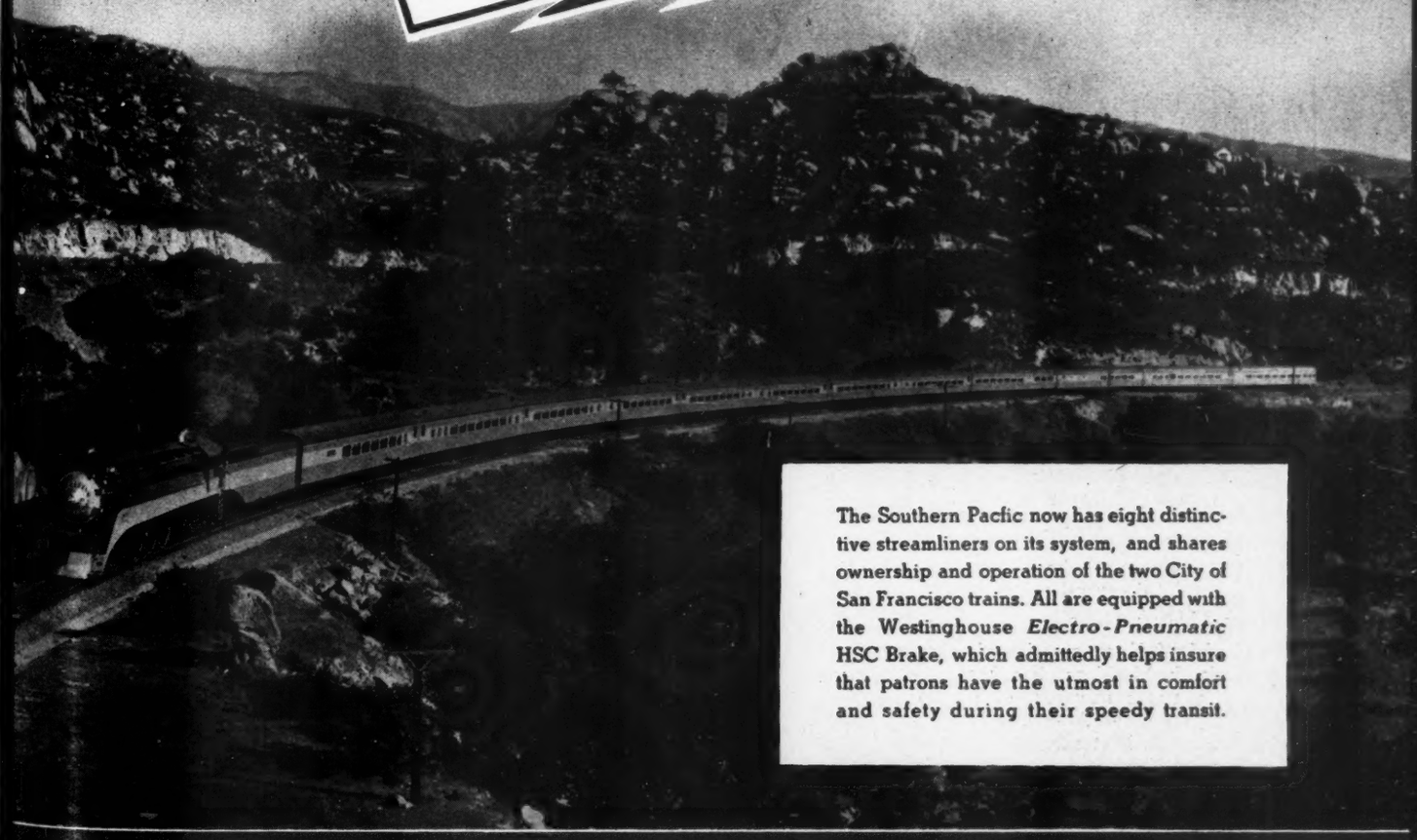
**C. E. Lister,** assistant superintendent on the Canadian Pacific at Calgary, Alta., has been transferred to Lethbridge, Alta. **W. J. McPherson,** assistant superintendent at Medicine Hat, Alta., has been

*Continued on next left-hand page*

# *Electro-Pneumatic*

# BRAKES....

Because of its superior performance characteristics, the *Electro-Pneumatic* HSC Brake Equipment assures invaluable operating advantages for ultra-modern high speed service. It provides instantaneous and very flexible control of braking force simultaneously throughout a train. Automatic governors adapt brake cylinder pressure to the speed throughout every retardation cycle. The engineman can readily respond to all operating restrictions imposed by physical condition of the line, or to any stop requirement. Retardation is invariably smooth, and time-saving slow-downs or complete stops can always be made. This equipment plays a distinctive part in the outstanding success of fast streamliners.



The Southern Pacific now has eight distinctive streamliners on its system, and shares ownership and operation of the two City of San Francisco trains. All are equipped with the Westinghouse *Electro-Pneumatic* HSC Brake, which admittedly helps insure that patrons have the utmost in comfort and safety during their speedy transit.

## WESTINGHOUSE AIR BRAKE CO.

WILMERDING, PENNSYLVANIA

transferred to Revelstoke, B. C., relieving **N. A. Link,** transferred. As reported in the *Railway Age* of October 18, **Thomas R. Alexander,** roadmaster at Fernie, B. C., was promoted to assistant superintendent at Calgary, succeeding Mr. Lister.

**C. O. Richardson,** trainmaster on the Chicago, Rock Island & Pacific at El Reno, Okla., has been promoted to assistant superintendent, with headquarters at Kansas City, Kan., a position which has been vacant for some time. **C. H. Anderson,** trainmaster at Blue Island, Ill., has been transferred to El Reno, Okla., relieving Mr. Richardson, and **R. W. Anderson,** assistant trainmaster at Denver, Colo., has been promoted to trainmaster at Blue Island, replacing C. H. Anderson.

## TRAFFIC

**Albert F. Loth** has been appointed general agent for the Alton at Pittsburgh, Pa., a newly created position.

**C. M. Tyler** has been appointed general freight agent of the Sabine & Neches Valley, with headquarters at Deweyville, Tex., succeeding **R. H. Dorman,** resigned.

**R. E. Taylor** has been appointed assistant traffic manager of the Nevada Northern, with headquarters at San Francisco, Cal.

**E. G. Wickerson,** city passenger agent on the Canadian National at Regina, Sask., has been promoted to general agent, passenger department, at that point, a newly created position.

**James M. Hopper,** freight representative of the Baltimore & Ohio at Pittsburgh, Pa., has been appointed district freight agent at Wilmington, Del., succeeding the late **George W. Bumpas.**

**J. R. Dalby,** district passenger agent for the Texas & Pacific at El Paso, Tex., has been promoted to general agent at that point, succeeding **Clarence D. Johnson,** whose promotion to assistant to the president with headquarters at New Orleans, La., is reported elsewhere in these columns.

**J. G. Kensett,** commercial agent, Atlantic Coast Line, with headquarters at Tampa, Fla., has been appointed general agent, with the same headquarters. **E. W. Brown,** commercial agent at Palmetto, Fla., has been appointed general agent, with the same headquarters. **C. I. Allen,** commercial agent at Lake Wales, Fla., has been appointed general agent, with the same headquarters.

**R. J. McMullen,** superintendent of the Detroit & Mackinac, has been appointed also traffic manager, with headquarters as before at Alpena, Mich., relieving **Arthur S. Matteson,** who has retired. Mr. Matteson was born at Marine City, Mich., on June 23, 1875, and attended Detroit Business University. He entered railway service in 1900 with the Michigan Central and in 1911 he went with the Detroit & Mackinac. In 1920 he was appointed freight claim agent and in the latter part of 1925 he was advanced to general freight and passenger agent, with headquarters at East Tawas, Mich. Mr. Matteson was later appointed traffic manager, which title he held until his retirement.

**Denis F. McCarthy,** whose promotion to general freight agent (rates and divisions) of the New York, Ontario & Western and the New York, Susquehanna & Western was reported in the *Railway Age* of November 8, was born at Jersey City,

**Denis F. McCarthy**

N. J., on February 11, 1887, and educated in the Catholic Institute in that city. He entered the service of the Erie as clerk at Pier 7, East River, New York, on September 1, 1902, subsequently serving until July 1, 1907, as stenographer and waybill and rate clerk. On the latter date he joined the New York, Ontario & Western as rate revision clerk in the office of the auditor of revenues and later became chief clerk of that office. Mr. McCarthy was appointed assistant general freight agent on January 1, 1938, which position he held until his recent promotion, also performing the same duties for the New York, Susquehanna & Western since March 1, 1940.

## PURCHASES AND STORES

**J. Arnot** has been appointed purchasing agent on the Canadian Pacific, with headquarters at Victoria, B. C., a newly created position.

## OBITUARY

**Bliss A. Bourgeois,** who retired in 1922 as assistant to comptroller and treasurer, Atlantic region, Canadian National, at Moncton, N. B., died on November 6 at the age of 72.

**John L. Hayes,** assistant general freight agent of the Baltimore & Ohio, with headquarters at Baltimore, Md., died at the Union Memorial hospital in that city on November 9, after an illness of several months, at the age of 72 years.

**R. L. Lockwood,** former director, Section of Purchases, for the Federal Coordinator of Transportation, died recently at his home in Dorset, Vt., of a heart ailment. Mr. Lockwood was born at Cleveland, Ohio, in 1878 and received his M.E. degree in 1905 from the Case School of Applied Science. Mr. Lockwood worked for many years on the design, production and installation of materials handling equipment. He served on the staff of the Division of Simplified Practice, Department of Commerce, for four years, and for two years in charge of all simplification projects, specializing in engineering and transportation matters.

**G. R. Cottingham,** former auditor and secretary of the Southern Pacific Lines in Texas & Louisiana, died on November 3 at St. Joseph's Infirmary, Houston, Tex., after an illness of five days. Mr. Cottingham retired on pension on July 31, 1938.

**Einar Weidemann,** engineer of bridges and buildings of the Western region of the Pennsylvania, with headquarters at Chicago, died suddenly of a heart attack which occurred at his office in the Union station, Chicago, on November 12.

**Alfred S. Poe,** resident inspector in the test department of the Baltimore & Ohio, with headquarters at Pittsburgh, Pa., died suddenly on November 10 at the age of 57 years. Mr. Poe entered the service of the Baltimore & Ohio at Wheeling, W. Va., on June 9, 1903, and was appointed resident inspector at Chicago on October 21, 1909, serving there until April 16, 1917, when he was transferred to Pittsburgh.

**Harry E. Byram,** chairman of the board of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at New York, died on November 11 at his home in Fairfield, Conn., of an intestinal ailment, in his 76th year. Mr. Byram was born on November 28, 1865, at Galesburg, Ill., and entered railroad service in 1881 as call boy for the Chicago, Burlington & Quincy, subsequently serving as stenographer in the general superintendent's office and as chief clerk to superintendent terminals at Chicago. He served as clerk in the general manager's office and chief clerk in the vice-president's office, Great Northern, at St. Paul, Minn., from 1894 to March, 1898, when he became assistant general superintendent of the Montana Central (now Great Northern) at Great Falls, Mont. Mr. Byram was superintendent of the Cascade division of the Great Northern at Everett, Wash., from October, 1899, to October, 1902, then serving as assistant to vice-president of the Chicago, Rock Island & Pacific at Chicago from the latter date until February, 1904. From February to July, 1904, he was general superintendent of the Southwestern district of the latter road at Topeka, Kan., and from September, 1904, to May, 1909, he served as general superintendent of the Nebraska district of the Chicago, Burlington & Quincy, becoming assistant to vice-president of the Burlington on the latter date. He served as vice-president of the latter road from February, 1910, to October, 1917, when he became president and receiver of the Chicago, Milwaukee & St. Paul (now Chicago, Milwaukee, St. Paul & Pacific). Mr. Byram served in the latter capacities until January 13, 1928, when he became chairman of the board.